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DESCRIPTIONS OF WHOI SEDIMENT CORES, VOLUME 5

Prepared by
the Staff of the
Sea Floor Samples Laboratory

Edited by D. A. Johnson and A. H. Driscoll

> June 1977 TECHNICAL REPORT

Prepared for the Office of Naval Research under Contract NO0014-74-C-0262; MR 085-004; and for the National Science Foundation under Grant

OCE 76-81488.

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WOODS HOLE, MASSACHUSETTS 02543

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WOODS HOLE OCEANOGRAPHIC INSTITUTION Woods Hole, Massachusetts 02543

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Approved for Distribution

Elizabeth T. Bunce, Acting Chairman Department of Geology & Geophysics

# TABLE OF CONTENTS

		Page
ABSTRACT		3
INTRODUCTIO	N	4
	ope and Format of this Report	4
C. Co D. Di	Classification System re Biostratigraphy gitization of Geological Sample Data ocedures for Obtaining Samples and Additional Core Data	5 12 15 18
	ferences Cited	19
ACKNOWLEDGE	MENTS	20
	STING OF WHOI SEDIMENT CORES, ARRANGED SDEN SQUARES	21
DESCRIPTION	S OF WHOI SEDIMENT CORES, VOLUME 5	78
R/V AS	TERIAS	
AS	T 0975, AST 1075, AST 0776	79
R/V AT	LANTIS II	
	I 85	132 138
R/V CH	AIN	
CH	N 115 N 119 cores N 119 grabs	175 465 685
R/V KN	ORR	
KN	R 47	693 718 761
	LIST OF TABLES AND FIGURES	
Table 1:		8
Table 2:	Sediment classification system	
Figure la:	Tertiary cores in WHOI core collection	9
Figure 1b:	Sediment classification system	10
Figure 2:	Lithologic symbols	11

#### ABSTRACT

This report supplements Volumes 1-4 of the core descriptions published previously in this sequence (Johnson and Driscoll, 1975). It contains visual descriptions and smear slide analyses for all cores received in the geological samples collection of the Woods Hole Oceanographic Institution between November, 1973 and November, 1976. Approximately 368 sample localities from the North Atlantic, Mediterranean, and South Atlantic are represented. Charts of ships' tracks and updated computer listings of all cores in the W.H.O.I. collection are also included.

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#### INTRODUCTION

### A. Scope and Format of this Report

Approximately two years ago we prepared and distributed a four-volume WHOI Technical Report (Johnson and Driscoll, 1975) containing descriptive and logistical data for all cores comprising the WHOI geological samples collection as of November 1973. The present report, which represents the fifth volume in the series, includes visual core descriptions and smear slide analyses for all WHOI cores obtained between November 1973 and November 1976. Not included are cores obtained during mid-1976 on cruise AII-93 in the Indian Ocean; cores from these and other expeditions in the near future will be included in Volume 6.

This compilation represents approximately 368 coring stations from the North Atlantic, Mediterranean, and South Atlantic. Core descriptions have been grouped according to ship and cruise number and are arranged chronologically for each cruise. A computer listing of the cores taken on each cruise, together with a chart indicating the ship's track, precedes the core descriptions.

The numbers assigned to the geological samples are followed by a letter (or letters) to indicate the method used in obtaining the samples. The letters which have been used are:

GC - Gravity core

PC - Piston core

PG - Pilot gravity core

GPC - Giant piston core

GGC - Giant gravity core

BC - Box core

CC - Camera (pogo) core

FF - Free-fall core

GR - Van Veen Grab

HC - Hydro core

KC - Kasten core

U/W - Underway bottom sampler

All cores in the WHOI collection except the giant cores and Kasten cores were obtained with conventional PVC core liner. These cores have been split and stored at room temperature in sealed polystyrene D-tubes, with moisture-saturated spongy material sealed inside the D-tubes to retard the loss of moisture from the cores. The giant piston cores and giant gravity cores were obtained without the use of core liner inside the core barrels. Upon recovery these cores were extruded into half-round cylindrical shells (150-cm length) and split longitudinally into working and archive halves. Each half was then sealed in plastic sleeving.

We have retained the original station numbers and core numbers insofar as possible. A gap in the core or station numbering sequence for any given expedition indicates either that the core is not now in the WHOI geological collection, or that such a core was never obtained. In some instances, the letter designations for the type of sampling device have been amended or deleted for purposes

of clarity and consistency within the collection. For example, a core now labeled as a "10a-PC" was originally labeled "10a"; the "PC" has been added to identify it as a piston core, and the "a" has been retained to insure proper correlation with the original coring records.

We have attempted to apply uniform procedures in completing the core descriptions and microscopic analyses of smear slides. A more detailed discussion of the WHOI procedures for shipboard core handling, core archiving, core describing, and core photography is included in the following reports:

- (1) Johnson, D. A. and Driscoll, A. H. (1972), "The curating of WHOI's geological collections", Woods Hole Oceanogr. Inst. Tech. Memorandum WHOI-2-72, 20 pp.
- (2) Mountain, G. S. (1973), "Procedures for description of WHOI sediment cores", Woods Hole Oceanogr. Inst. Tech. Memorandum WHOI-7-73, 25 pp.
- (3) Shephard, F. C. (1976), "Procedures for photographing WHOI sediment cores", unpublished MS.

### B. Summary of Description Procedures and Sediment Classification System

The following is a summary of the descriptive procedures used in preparing this report; a more complete discussion is included in Volume 1 of this series (Johnson and Driscoll, 1975, pp. 7-21).

## 1. Visual description

The entire core is laid out in the correct order of sections, and proper labeling is verified. The core is then subdivided into units, which may be distinguished from each other by lithology, color, texture, or special features. Contacts between units are classified as gradational (G) or sharp (S); sharp bottom contacts are further described as horizontal (H), inclined (I), mottled, irregular, or curved (convex upward or downward). The color of the unit is described by comparison with the Munsell Soil Color Chart. When more than one color is dominant, excluding mottles or burrows, each noteworthy color is recorded. When a multitude of fine laminations is present, only the dominant color is recorded.

Textural notation includes descriptive parameters such as grain size and the amount of dehydration, compaction, and lithification. Grain size parameters used are: lutite (< 4  $\mu$ ), silt (4 $\mu$  - 62 $\mu$ ), sand (62 $\mu$  - 2 mm), and gravel (> 2 mm). Microscopic examination of smear slides is used to determine the lighology and relative abundance of silt- and sand-sized components. Sand and gravel are distinguishable through a magnifying glass and to the unaided eye. Estimation of sizes within the sand range is accomplished by comparison with vials of sieved, standardized sands.

Additional observations fall under the heading of "special features". Graded bedding may be observed in silt-sized or coarser-grained sediment. The range in

grain size and the depth interval over which grading occurs are noted. Graded beds are often burrowed in the fine upper section and have sharp, eroded bottom contacts. Many graded beds may be turbidites, but this generic term is not used in the descriptions of graded beds. Cross-bedding is rarely observed and is generally restricted to silt- or sand-sized sediment. Beds of alternating colors or textures which truncate each other on a scale as small as one mm are described as cross bedding. Laminations and microlaminations (up to 1 mm thickness) are observed and noted.

Poor core recovery, washed sediment, or flow-in are also included as special features. Flow-in may occur in piston cores, and is usually found at the bottom of the core, but may occasionally occur in upper sections as well. It results from insufficient core penetration and subsequent sucking action of the piston upon core pull-out. Verification of flow-in can be obtained by X-radiography when flow-in is suspected but cannot be demonstrated visually. Occasional multiple penetrations of either the pilot core or the piston core have been documented, and are especially well illustrated in some of the CHAIN 119 cores.

### 2. Smear slide analysis

Smear slides have been prepared and analyzed from the top and bottom of each core, at intervals of approximately one meter within the core, and from each major lithologic unit when closer sampling is required. The smear slides are examined through a polarizing binocular microscope, commonly with a magnification of 80X - 320X. The slide is first scanned at low power for a general indication of its composition. The describer then estimates the percentages of the various components, using standardized smear slides and frequent comparisons between describers in order to give some assurance that percentages are being estimated with some degree of consistency. However, the data tabulated on the smear slide forms should be used only qualitatively as an indication of the relative proportion of various components, and how the relative abundance of each component appears to change within a given core.

The following sediment components represent those most commonly encountered in smear slide analysis, and they are used in identifying the sediment type:

In	organic Components		Biogenic (	Compone	ents
			Calcareous	S	iliceous
(a	) Detrital grains	(g)	Foraminifera	(1)	Diatoms
(b		(h)	Nannofossils	(m)	Radiolaria
(c	) Zeolites	(i)	Discoasters	(n)	Sponges
(d	) Volcanic shards	(j)	Pteropods	(o)	Silico-
(e	) Pyrite	(k)	Others		flagellates
(f	) Clay				

### 3. Designation of sediment type

A sediment name is assigned to each sample examined, following the sediment classification scheme summarized in Table 1 and in Figures 1a-1b. These sediment names are recorded on the smear slide description sheet, and serve as a basis for designating one or more sediment types for each lithologic unit.

Each principal lithologic unit is described on the visual description sheets, using the following format:

## Descriptive Terms

### Descripcive real

0-112 CALC OOZE

10 YR 6/4 light yellowish brown common dark brown mottling throughout firm, slightly silty lutite 2 Mn nodules, 2 cm diam., 95-100 cm S, inclined 10°

### Explanation

Depth interval (cm)
Sediment type
Color
Mottling (if present)
Texture
Special features
Basal contact

In the lithologic log on the left side of the visual description sheets, appropriate symbols are used to summarize the lithology and any special features which are readily observed macroscopically. A key to the symbols used in the lithologic logs is presented in Figure 2.

### TABLE 1: Sediment Classification System

- I. MAJOR SEDIMENT NAME: Based on relative proportion of biogenic material (CaCO<sub>3</sub> + SiO<sub>2</sub>) and inorganic material.
  - A. Oozes: Total biogenic material ≥30%

Calcareous ooze: CaC0<sub>3</sub>>>SiO<sub>2</sub>

Calcareous-siliceous ooze: CaCO3 > SiO2, SiO2 > 5%

Siliceous-calcareous ooze: Si02 > CaC03, CaC03>5%

Siliceous ooze: Si0<sub>2</sub> >>CaC0<sub>3</sub>

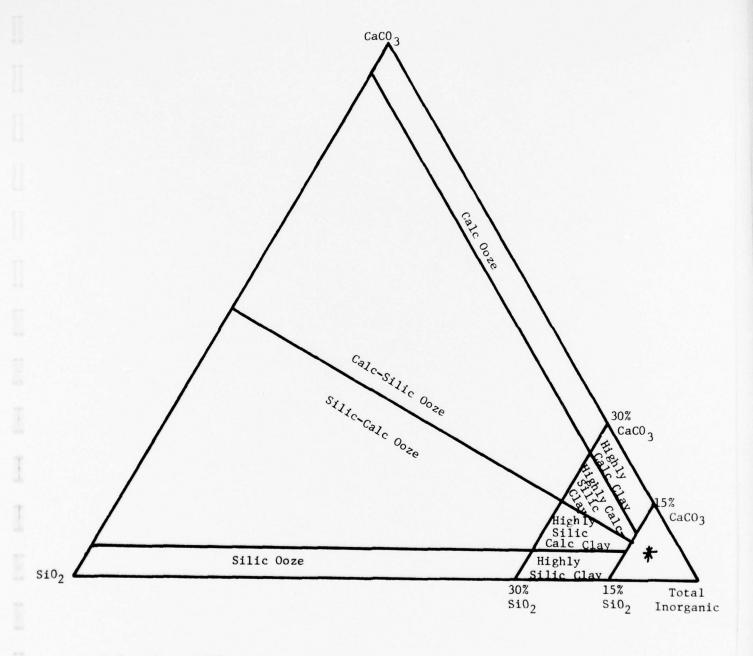
B. Clays: Total biogenic material <30%

Highly  $\left\{\begin{array}{ll} \text{calcareous} \\ \text{siliceous} \end{array}\right\}$  clay:  $15\% \leqslant \left\{\begin{array}{ll} \text{CaCO} \ 3 \\ \text{SiO}_2 \end{array}\right\} < 30\%$  Calcareous  $\left\{\begin{array}{ll} \text{clay} \\ \text{SiO}_2 \end{array}\right\} < 15\%$  Slightly  $\left\{\begin{array}{ll} \text{calcareous} \\ \text{siliceous} \end{array}\right\}$  clay:  $1\% \leqslant \left\{\begin{array}{ll} \text{CaCO} \ 3 \\ \text{SiO}_2 \end{array}\right\} < 5\%$ 

II. SECONDARY SEDIMENT NAMES: Included when silt- or sandsized inorganic components are present in excess of 15%.

(MAJOR SEDIMENT NAME) with { detrital grains Mn micronodules zeolites volcanic ash etc. } : 15% { } 30% (MAJOR SEDIMENT NAME) / { detrital grains Mn micronodules zeolites volcanic ash etc. } : } 30% (MAJOR SEDIMENT NAME) / { detrital grains Mn micronodules zeolites volcanic ash etc. } :

FIGURE la: Sediment Classification System



<sup>\* (</sup>see Figure 1b)

FIGURE 1b: Sediment Classification System

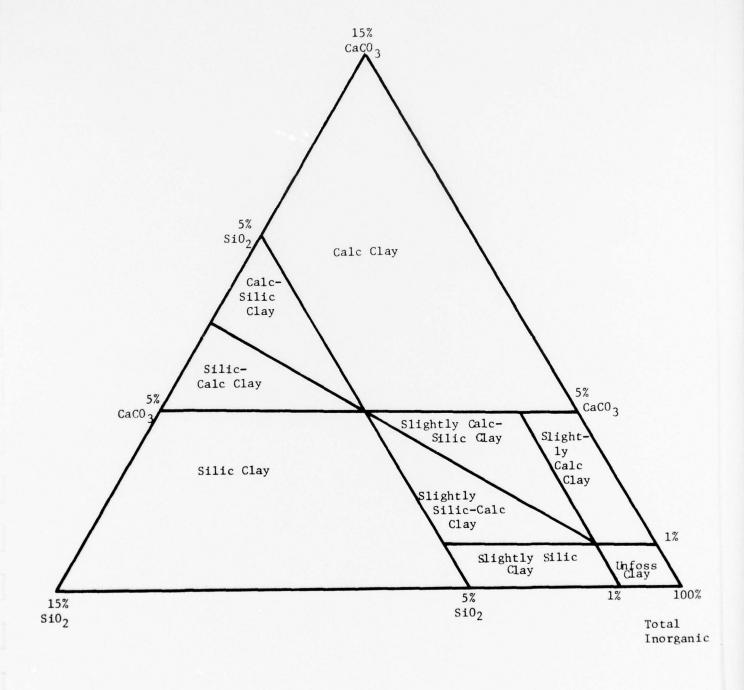
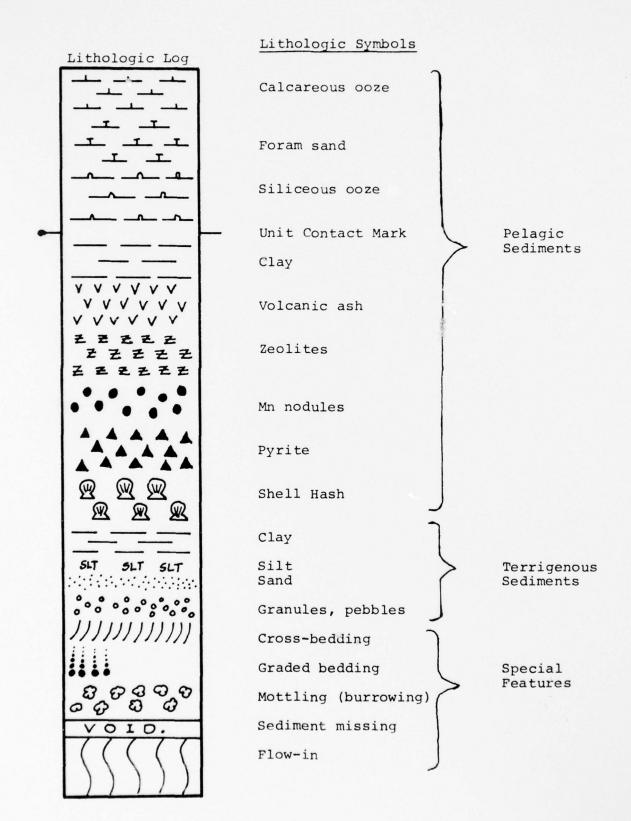


FIGURE 2: Lithologic Symbols



## C. Core Biostratigraphy

Calcareous microfossil assemblages have been examined to assign a biostratigraphic age to the top and bottom of each core. An epoch name (e.g. Pleistocene, Pliocene, etc.) was designated for each sample examined; no attempt was made to determine the specific nannofossil or foraminiferal zones. Each visual description sheet contains the age of the top and bottom of the core in the margin next to the lithologic log. Any age which is in question (e.g., Pliocene?) indicates possible reworking, to account for an assemblage of microfossils which have non-overlapping stratigraphic ranges. In cores where microfossils were absent in the bottom smear slide but were identified in overlying samples, the basal age is assumed to be the same as that of the deepest microfossil-bearing sample which was examined. In this case, the notation used is an asterisk (e.g., Pliocene\*). Table 2 lists all Tertiary sediment cores in the WHOI collection, including those described in volumes 1-4 of this series as well as those included in volume 5.

TABLE 2: Tertiary Cores in WHOI Core Collection\*\*

Cruise No.	Core No.	Age (base of core)
Atlantis II - 1	5-PC	Pliocene
Atlantis II - 15	10-PC	Pliocene
Atlantis II - 31	15-PC	Pliocene
Atlantis II - 32	2-GC	Paleocene*
	8-GC	Paleocene*
Atlantis II - 42	11-PC	Pliocene
	14-PC	Pliocene
	17-FC	Pliocene
	18-PC	Pliocene*
	19-PC	Pliocene
	20-PC	Pliocene
	21-PC	Pliocene*
Atlantis II - 49	40b-PC	Paleocene*
	41a-PC	Paleocene*
Atlantis II - 54	. 5-PC	Upper Pliocene
	6-PC	Middle Miocene
	7-PC	Middle Miocene
Atlantis II - 60	9B-GC	Pliocene
Atlantis II - 92	1-GC	Pliocene
	2-PC	Pliocene
	4-PC	Pliocene
	5-PC	Upper Pliocene
	6-PC	Pliocene
	7-PC	Pliocene
Chain - 13	1-PC	Pliocene*
Chain - 57	4-PC	Upper Eocene*
	13-PC	Upper Oligocene
Chain - 61	171-PC	Upper Pliocene
Chain - 75	14-PC	Middle Miocene
	22-PC	Miocene
Chain - 99	6-PC	Lower Miocene
	22-PC	Pliocene*
Chada 100	32-PC	Pliocene
Chain - 100	28-PC	Pliocene*
	75-PC	Pliocene
	78-PC	Pliocene*
	80-PC	Paleocene
	82-PC	Lower Oligocene
	87-PC 88-PC	Pliocene
	91-PC	Upper Oligocene
	91-PC 93-PC	Upper Miocene
	93-PC 94-PC	Lower Pliocene
	98-PC	Upper Miocene Lower Pliocene
	30-10	Lower Filocene

TABLE 2: Tertiary Cores in WHOI Core Collection\*\*(cont'd)

Cruise No.	Core No.	Age (base of core)
Chain - 115	8-PC	Pliocene
	23-PC	Upper Miocene
	45-PC	Lower Miocene
	62-PC	Pliocene*
	64-PC	Upper Miocene
	67-PC	Upper Miocene
	70-PC	Eocene
	73-PC	Middle Miocene
	75-PC	Upper Miocene
	76-PC	Lower Pliocene
	79-PC	Middle Miocene
	80-PC	Lower Miocene
	81-PC	Upper Miocene
	82-PC	Oligocene
	84-PC	Upper Miocene
	86-PC	Upper Miocene
Knorr - 31	26-GGC	Eocene

<sup>\*</sup>Bottom sample in core is devoid of microfossils. Basal age is assumed equal to that of lowermost microfossil-bearing horizon.

<sup>\*\*</sup>Includes all cores obtained prior to November 1976.

### D. Digitization of Geological Sample Data

All logistical information about geological samples in the WHOI core collection is stored on magnetic tape and accessible through computer program MUDDIE. In addition to these data, a summary of the descriptive information for each core has been put into digital form to allow rapid retrieval. Stored information about the samples may be retrieved according to combinations of any of the following parameters: ship, cruise, and leg number; latitude and longitude limits; Marsden Square number(s); water depth interval; core lengths; specific or general sampling device; physiographic province; and rock or sediment type.

A complete listing and documentation of the computer program MUDDIE is included in a recent WHOI technical report (Driscoll and Rush, 1975). The following summary explains the coded terms used in the computer listings of samples in this report:

### Ship Codes

AST - Asterias

AII - Atlantis II

CHN - Chain

KNR - Knorr

#### Sample Devices

The sampling devices used to collect an individual sample are indicated by the following two-digit codes. In cases where various instruments have been added to the primary sampling device, an entry has been made in the VITA CODE column.

01 - Campbell Grab

02 - Smith-McIntyre Grab

03 - Van Veen Grab

04 - Dietz-La Fond Snapper

05 - Scoopfish

06 - Underway Bottom Sampler

07 - Pipe Dredge

08 - Chain Bag Dredge

09 - Anchor Dredge

10 - Pipe Dredge, 3 inch

11 - Pebble Dredge

12 - Pierce Dredge

13 - Gravity Core

14 - Camera Core

15 - Piston Core

16 - Giant Piston Core

17 - Giant Gravity Core

18 - Free Fall Core (Benthos Type)

19 - Box Core

20 - Kasten Core

21 - Hard Rock Core Drill

22 - Kennecott Grab

23 - Alvin Sediment Core Drill

24 - Alvin Manipulator

25 - Williams Rock Drill

26 - Pilot Core

### Fix Types

Types of navigational equipment used to determine the sample location are as follows:

- 00 = Unspecified (Comment in REMARKS or on COMMENT CARD)
- 01 Dead Reckoning
- 02 Visual Bearing
- 03 Radar Fix
- 04 Celestial
- 05 Loran A
- 06 Loran C
- 07 VLF
- 08 Omega
- 09 Satellite
- 10 Radar Transponder Buoy
- 11 Bottom Transponder
- 12 Final Navigation File\*

### Physiographic Province

A general physiographic location has been assigned to each of the samples listed, and can be decoded as follows:

- 01 Insular Shelf
- 02 Continental Shelf (along continental margin)
- 03 Insular Slope
- 04 Continental Slope
- 05 Insular Rise
- 06 Continental Rise
- 07 Marginal Plateau or Borderland, deeper than 100 fms (e.g., Blake Plateau)
- 08 discontinued
- 09 Archipelagic Apron
- 10 Abyssal Plain
- 11 Abyssal Hills
- 12 Seamount or Seamount Province
- 13 Aseismic Oceanic Rise or Ridge (e.g., Rio Grande Rise, Walvis Ridge)
- 14 Ridge Crest
- 15 Ridge Flank
- 16 Axial Valley
- 17 Trench Insular
- 18 Trench Continental Margin
- 19 Fracture Zone
- 20 Marginal Sea (e.g., Sea of Okhotsk, North Sea)
- 21 Small Ocean Basin (e.g., Red Sea, Caribbean Sea)
- 22 Inland Fresh Water Lake (e.g., African Lakes)
- 23 Harbor, Shallow Bay (e.g., Buzzards Bay)
- 24 Delta or Cone (e.g., Hudson Canyon)
- 25 Submarine Canyon (e.g., Hudson Canyon)
- 26 Mid-Ocean Canyon or Channel (e.g., Maury Channel, N. Atlantic Mid-Ocean Canyon)
- 99 Unspecified: (Comment in REMARKS or on a COMMENT CARD)

<sup>\*</sup>Satellite fixes updated by continuous monitoring of ship's speed and heading via gravity acquision system

### Rock or Sediment Type

A four-digit code has been utilized to produce a rough description for each sediment sample listed. The first and second digits refer to the primary and secondary sediment types found with the sample. Both digits are from the following list.

- 1 Unfossiliferous clay
- 2 Silty/sandy clay
- 3 Calcareous ooze
- 4 Calcareous clay
- 5 Siliceous ooze
- 6 Siliceous clay
- 7 Foraminiferal sand, pteropod sand
- 8 Inorganic silt, sand
- 9 Volcanic glass
- 0 Other

The third digit explains the relationship of the sediment types to one another.

- 1 Finely interbedded
- 2 Gradational contacts
- 3 Sharp contacts
- 4 Irregular or disturbed contacts
- 5 Entire core of uniform lithology
- 6 Contained in the same lithologic unit
- 7 Obscured
- 8 Visually indistinguishable
- 0 Other

The fourth digit is used to designate special features occurring within the sample.

- 1 Graded bedding or cross-bedding
- 2 Extensive mottling or burrowing
- 3 Manganese nodules
- 4 Granules or pebbles
- 5 Shells or shell fragments
- 6 Pyrite-rich sediment
- 7 Partially lithified sediment
- 8 More than one of the above
- 9 None
- 0 Other

### Vita Code

The VITA CODE is used to amplify the entry made in the DEVICE column and to provide a guide to additional types of data not covered in this listing.

- 40 with Camera
- 41 with Heat Flow outrigger probes
- 42 with Compass
- 43 with Nephelometer

### Vita Code (cont'd)

44 - with Velocimeter

45 - with Temperature Pinger

46 - with Compass and Heat Flow

47 - with Camera and Compass

48 - with Camera and Nephelometer

49 - with Camera and Sound Velocimeter

50 - with Camera and Temperature Pinger

51 - with Heat Flow and Sound Velocimeter

52 - with Heat Flow and Nephelometer

53 - with Heat Flow and Temperature Pinger

54 - with Camera, Heat Flow, and Compass

55 - with Camera, Heat Flow, Compass, and Nephelometer

56 - with Camera, Heat Flow, Compass, Nephelometer, and Sound Velocimeter

57 - with Camera, Heat Flow, Compass, Nephelometer, Sound Velocimeter, and Temperature Pinger

58 - with Camera, Heat Flow, Compass, and Temperature Pinger

### E. Procedures for Obtaining Sediment Samples and Additional Core Data

The WHOI Sea Floor Samples Laboratory is prepared to furnish sediment samples and data to interested scientists, researchers, and students inside or outside WHOI who express a legitimate interest and need. Sediment sampling is normally permitted in reasonable quantities, though sampling of recently acquired cores (taken during the preceding two years) is subject to the approval of the appropriate cruise chief scientist or collector of the samples.

The following procedures will serve as a guide to individuals requesting samples:

### PROCEDURES FOR REQUESTING SAMPLES

- (1) Requests for samples may be sent directly to the staff scientist engaged in research on the samples, if this person is known. If not known, sample requests should be sent to the Curator's Office, Data and Earth Sample Center, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts 02543.
- (2) A request for samples should include a brief summary of the type of research to be undertaken, the nature of the laboratory facilities available, and the source of financial support available for the work. The names of associated investigators should be given, and the nature of their research, facilities, and funding should be indicated if different from that of the applicant.
- (3) If the material requested is within the 2-year period of proprietary access, sample requests will be referred to the appropriate scientists for approval. Otherwise, sample requests will be reviewed by the curator's office.
- (4) The curator's office, in consultation with the appropriate WHOI staff scientist, will advise on the availability of material and on any other conditions that may be appropriate to ensure effective utilization of the material.

#### RESPONSIBILITIES OF PERSONS RECEIVING SAMPLES

- (1) The original alpha-numeric samples label should be used in published papers, or any departure from this scheme should be clearly equated with the original labeling system in published papers or data summaries. This labeling system will be explained in the information supplied with the samples.
- (2) Published papers should acknowledge the source of samples and the appropriate grant or funding agency which supported the cruise recovering the samples. This information will be supplied at the time the samples are sent. These papers should also acknowledge the financial support responsible for maintaining the Woods Hole geological samples (NSF Grant OCE76-81488, and ONR Contract NO0014-74-C-0262).
- (3) Copies of all published papers, reports, or data summaries utilizing Woods Hole samples should be sent to the appropriate WHOI staff scientist and the WHOI curator.
- (4) The researcher should return all unused samples or portions of samples to the curator at the completion of his work.
- (5) Recipients of samples should not co-opt the services of other investigators or undertake research projects which differ substantially from work originally proposed, without obtaining the approval of the curator and the appropriate staff scientist.

#### F. References Cited

- Driscoll, A. H. and Rush, S. M., 1975, "W.H.O.I. geological samples data file, Volume I", Woods Hole Oceanogr. Inst. Tech. Rept. No. 75-37, 278 pp.
- Johnson, D. A. and Driscoll, A. H., 1975, "Descriptions of WHOI sediment cores, Volumes I-IV", Woods Hole Oceanogr. Inst. Tech. Rept. No.75-8, 2937 pp.

#### ACKNOWLEDGMENTS

The Woods Hole core lab staff has received continuing support and encouragement from J. R. Heirtzler and J. I. Ewing, who have served as department chairmen of the Geology and Geophysics department. Financial support for the Woods Hole core lab operations have been provided by the Office of Naval Research under Contract N00014-74-C0262, NR083-004; and by the National Science Foundation under Grant No. OCE76-81488.

We have received numerous helpful suggestions from our colleagues concerning procedures for carrying out the descriptive work and presenting the results. We thank Bob Groman for frequent assistance in the operation of the MUDDIE computer program, and Bill Dunkle for his assistance in locating original cruise records and station data.

Full credit for the completion of this report is due to the careful and comprehensive work of the WHOI core lab staff: Jim Broda, Harlow Farmer, Frank Shephard, and Lynn Whiteley.

COMPUTER LISTING OF WHOI SEDIMENT CORES,
ARRANGED BY MARSDEN SQUARES

	5			691	133	\$ \$	50	<u>\$</u>			2 98	34	468	504	540	70.	576	80*
5 925	1000	2 241	6 205		-		2 061	86	25.22	1 360			+	-		+		
956	. 57° B	3 242	206	170	134	960	1,062	10/1	1	100	397	433	469	505	541	-	773	613
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928	98	75.	208	172	136	100	290	920	327	363	399	435	471	507	543		579	615
929	ī	53	209	173	137	101	985	029	328	364	400	436	472	508	544		580	919
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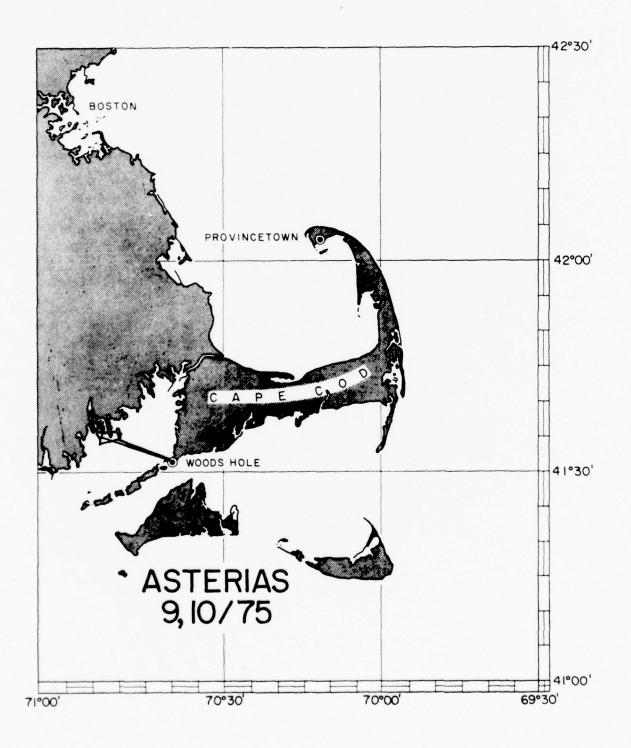
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DESCRIPTIONS OF WHOI SEDIMENT CORES, VOLUME 5



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Page 1 of 1

Ship BSERIMS Cruise 9-75 Leg — Sta. 24 Core No 16C.
Total Langth 1/2 cm. Lat 41.523.14 Long 74°58.50 Depth 6.4 meks.
Core condition Excellent Date Described 1 mar. 16 by Africk.
Physiographic location 30229015 874 APPRICATINES TO NEW BECAGO 4490.00.

Lithologic

Detailed Description

0-112 SILIC CLAY/DETRITUS GRADES TO HIGHLY SILIC CLAY/

ارم باستان

e d

DETRITUS

5 Y 3/2 dark olive gray
a few gradational color zones found throughout; a faint,
"rusty" brownish-yellow zone 16-21 cm; also a darker
gray zone surrounding crushed scallop shell intrudes
30-40 cm
firm, quite silty lutite with a number of various pelecyped shell fragments and beds of shell hash found
throughout: large scallop shell 33-38 cm; scattered
fragments 40-44 cm, shell hash 42-47 cm; small bits
and fragments scattered 50-85 cm

and of core

# 00

Perymen enderly are Illum

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

24 Core No. 1 GC Station No. \_ 9-75 ASTERIAS Expedition Ship: Leg No.

112 Total Core Length

		Ino	rgani	C Mat	erial			80	al Biogenou	Sno	Biggenous Material	ام		
			Silt	& San	Silt & Sand			Ca	Calcareous	Sno		511	Siliceous	S
LEVEL	SEDIMENT	Detrital Snisy	Micronodules	Zeolites	Volcanic sbrads	Clay	Forams	2 fizzołonneN	Pteropods	Discoasters	szent0	2 smots id	SinsforbsA	sabuods
1	silic clay/ detritus	35	1			58	-1					4		6
20	silic clay/ detritus	30	23			55					5	00		S
50	highly silic clay/detritus	32	1			52					ב	10		9
=======================================	highly silic	35	2			45						12		9

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VISUAL CORE DESCRIPTION

Page / of /

Ship ASTERIAS Cruise 9-75 Leg — Sta. 52 Core No. 36C.
Total Length 34 cm. Lat 41.36 4874 Long 78-55 574 Depth 3.6 meta.
Core condition EXCELLENT. Date Described 9.74676 by Asterior Physiographic location 8020456 994 APPROAMES TO NEW ECOND. 149806.
Lithologic

Detailed Description

0-34

SLICHTLY SILIC CLAV/DETRITUS
5 Y 3/2 dark olive gray
a few zones of "rusty" olive yellow staining 18-22 cm,
28-31 cm; otherwise homogeneous throughout with the
exception of shells
quite coarse sand in a silty lutite matrix with shells
and shell hash common 0-17 cm; large fragment of
quahog shell 0-5 cm

end of core

Please and a second and second an

980

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

AST Core No. 3 CC	9-75 Station No. 52	Total Core Length 34 cm
	Expedition 9-75	lo.

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	9	Sil	2mo 1 6 t U	3	2	2	
	Biogenous Material		0thers	1	Ŀ	5	
( e	M Sno	sn	Discoasters				
CES (	iogen	Calcareous	Pteropods				
MDAN	80	Cal	s[isso]onn6N				
ESTIMATED ABUNDANCES (%)			2m6107				
IMATE			Clay	20	37	30	
EST	Material	P	Volcanic				
	c Mat	Silt & Sand	Zeolites				
	gani	silt	29 [ubonora iM				
	Inor		letrited enterp	45	09	65	
			SEDIMENT	slightly silic	slightly silid	slightly silid clay/detritus	
			LEVEL	-	17	33	
-	_	_				1	

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VISUAL CORE DESCRIPTION

Ship HSEAMS Cruise 9-75 Leg Sta 67 Core No. 46C.
Total Length 88 cm. Lat 4/56/1974 Long 10:55554 Depth 8.8mcEr.
Core condition Excellent Date Described 12MEK by Forda.
Physiographic location Buzeness fine African Legs to New Escreto Harbe.

Detailed Description Lithologic

Respond to the state of the sta

D-50
SILIC CLAY/DETRITUS
5 Y 3/2 dark olive gray
except for slight textural variations and zones of
shell hash, the unit is homogeneous throughout
stiff, compact, very slity lutite with shell hash
and fragments scattered throughout, and concentrated
in the zones 0-9 cm and 20-30 cm
50-88

6

SILIC CLAY/DETRITUS
39 A1 3/2 dark clive gray
39 ain, excluding textural anomalies, unit is virtually
homogeneous throughout
coarse and fine sands in a very silry lutite matrix;
several zones of crushed shells and a few quartz
pebble erratics are found throughout

11 endofort: 88mm.

Dientercu C T

end of core

880

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. AST Expedition 9-75 Ship:

Leg No.

88 19 Total Core Length Station No.

70 7

5

Biogenous Material
Calcareous Siliceous Rediolaria smotsia 4 9 5 tr Others Discoasters ESTIMATED ABUNDANCES (%) preropods sfizzofonnsN Forams Clay 40 32 Volcanic Inorganic Material Silt & Sand Sectioes Micronodules Detrital grains 20 09 65 45 silic clay/
detritus
silic clay/
detritus
silic clay/
detritus
silic clay/
detritus SEDIMENT TYPE LEVEL 07 55 87

Page 1 of 1

Ship 3562/A5 Cruise 9-75 Leg Sta 78 Core No 66C.

Total Length 70 cm. Lat 4/35200 Long 7834-02 Depth 9/1-41.

Care condition Excellent Debth Dole Described Lithers by J. BROM.

Physiographic location.

The section of the se Lithologic

Detailed Description

SLICHTLY SILIC CLAY/DETRITUS GRADES TO SILIC CLAY/

0-10

DETRITYS
5 Y 3/2 dark olive gray
5 I 3/2 dark olive gray
8 I 3/2 dark olive gray
8 I 3/2 dark olive gray
8 I 1 ightening of hue in the textural laminations
8 I 1 ragments scattered throughout, and concentrated
9 within zones 0-5 cm, 9-13 cm, 26-32 cm large scallop
8 shell fragment and inact crepidals shell; also
9 multiple appearances of sandy (coarser) laminations
9 (detritus and shell hash) and lenses 32-70 cm

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

20 Total Core Length \_\_ 9 00 78 Station No. Core No. AST Expedition 9-75 Leg No. Ship:

E

			1		EST	IMAT	ESTIMATED ABUNDANCES (%)	MDAN	ES (	24		1		
		Ino	rgani	C Mat	Inorganic Material			8	oden	Biggenous Material	ater	9		1
			Silt	& San	P			Cal	Calcareous	Sn		Sil	iceo	ST
LEVEL	SEDIMENT TYPE	Setrita) Saiterp	Micronodules	2931109Z	Volcantc shards	Clay	2m6 v o F	sitzzotonnsM	Pteropods	Discoasters	snad10	2mots t0	sinsloibsA	Spondes
-	slightly silip		1			50					à	2		~
35	silic clay/	09	1			34.					:			
8 69	silic clay/	55	3			2 2					1	2		2
													L	

Page / of /

Ship ASTERING. Cruise 9-75 Leg Sta. 80 Core No BGC.

Total Length 68 cm. Lat. 47:30.27% Long. 70:5565 W Depth 79 mc.

Core condition EXCELENT Date Described 11 mc by 1 Brode.

Physiographic location NEW 66.000 p. MR480c.

89-0 Mestricio Log Lithologic

Detailed Description

HIGHLY SILIC CLAY/DETRITUS GRADES TO SILIC CLAY/DETRITUS

Leg No.

5 Y 3/2 dark olive gray

numerous and repetative gradational bands and laminations throughout the zone 10-58 cm; the majority of the best defined ones are olive or olive yellow and are .5-1.5 cm wide, a few very dark gray laminations are found near the base of the core moist, slightly slity lutite with a few scattered bits of decomposed wood fragments 10-60 cm and a shell hash bi-2-64 cm composed of petecypods to portion of aluminum beverage container (partially decomposed) 3-5 cm

and of ure issue

2 Pleustace

end of core

095

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Total Core Length 68 8 GC 80 Station No. Core No. AST Expedition 9-75 Ship:

E

12 sabuods Biogenous Material
Calcareous Silicecus sinsloibeA Diatoms tr 10 H SJAUTO Discoasters ESTIMATED ABUNDANCES (%) preropods sfizzotonnsM 51 07 Clay Inorganic Material Silt & Sand Volcanic Sealfloss Mi cronodul es tr grains 25 Detrital 45 35 highly silic clay/detritus hly silic clay with detritus silic clay/ detritus SEDIMENT TYPE LEVEL 30 67

Page 1 of 1

Ship ATERIAS Cruise 10-75 Leg Sta 81 Core No 9 GC.
Total Langth 1/2 cm. Lat 41-39/3 / Long 12-55.20 w Depth 5.2 million.
Core condition EXCELLENT
Date Described 6.54m 76 by H. Farmer
Physiographic location Acustane T. River New BetFord Harber

DETRITUS/SLIGHTH SILIC CLAY
10 WR 4/4 (very) dark yellowish brown with 1 cm
lamination of yellowish brown at base
sediment is black below exposed surface SLICHTLY SILIC CLAY/DETRITUS 5 YR 3/3 dark reddish brown sediment is black below oxidized surface layer Detailed Description fine sand 8-0 1 xT -1 13 4 7 4 4 Lithologic 4 Log 11 - Tis 100 7

SILIC CLAY WITH DETRITUS very silty/sandy lutite

11

3

10 YR 3/1 very dark gray (black under surface) grades to 5 Y 3/2 dark olive gray ( 48 cm) slight brownish hue appears from 27-31 cm in half

of liner and 39-44 cm very silty/sandy futite becomes finer and less silty below 57 cm; three fine sand laminations 44-46 cm; large pelecypod fragments at 37 and 57 cm with scattered smaller fragments at 37 and 57 4 x 4 cm fragment of concrete block at 23 cm

1

100/

SHELL HASH IN MATRIX OF SILIC CLAY WITH DETRITUS SY 17/2 dark olive gray non-morting pelecypod shell hash in very silty lutite matrix

SILLC CLAY WITH DETRITUS
OF 3.2 very dark grayish brown
uniform except for a few pelecypod fragments
very silty lutite

120 - Batom of core

0

DETRITUS/SLIGHTIM SILIC CLAY
10 YR 372 very dark grayish brown
homogemeous throughout
firm, coarse sand with some small pebbles (5 cm),
a bit of organic detritus (117 cm) and a few very
small shell fragments

end of core

094

## SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

		Ca
Core No. 9 GC	Station No. 81	Total Core Length 119
Ship: AST	Expedition 10-75	Leg No.

					EST	IMAT	D A8	ESTIMATED ABUNDANCES (%)	ES (			1		
		Inc	Inorganic	CHAL	"aterial			80	Biggenous	S	Material	9	1	
			Silt	& Sand	p			2	Calcareous	sn		Sili	Siliceous	S
LEVEL	SEDIMENT TYPE	Detrital sateng	Micronodules	Zeolites	Volcanic shards	Yeld	Forams	sfissofonnsN	sboqoratq	Discoasters	279410	2mots t0	6 instoibeA	Sponges
2	detritus/slightly	t1y 78				20					1	-		1
20	silic clay	25				99					h	9		6
65	silic clay	20				75						3		2
118	detritus/slightly siltc clay	t1y 80				18						5		2

095

VISUAL CORE DESCRIPTION

Page 1 of 1

Ship AssectAs Cruise 10-75 Leg Sta 83 Core No 10 GC.
Total Length 23 cm. Lat 41' 39 44 N Long 10:55.09 Wheeh 2.7 meters
Core condition ExcerteNT
Physiographic location AcusaNNET River New Septemble Halling

Detailed Description Lithologic Log

Pleis Action Long 79

DETRITUS/SLIGHTLY SILIC CLAY

N 1/2 dark olive gray
homogeneous except for pelecypod shells
firm, poorly sorred sand with numerous small shell
framemore and two large shells spanning the core
liner from 4-11 cm

3

\* \*\*

Mesherne.

960

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

EO 23 10 00 83 Total Core Length Station No. Core No. Expedition 10/75 AST Leg No. Ship:

		Inc	mani	3	C. Leine	ESTIMATED	AB	ABUNDANCES (%)	ES	Riodenous Material	to to	141		
LE KE	1		116	& San	Silt & Sand			C.8.7	Ca) careous	Sn	200	Sil	Siliceous	Sh
	SEDIMENT	16377390 znisag	es (upouous (M	59111092	spaens spaens	Clay	Forams	s[fsso]onns/	ebogon934	Ofscoasters	sya430	smots f0	6 tys forbs A	sabuods
	detritus/ slightly silic	99				30					ä	2		2
	ay.													
12	detritus/ slightly silic	76				20					2	5	2	3

Ship #37e8145 Cruise 10-75 Leg Sto 84 Core No 11GC
Total Length 123 cm Lot 11 38 63 in Long 10:57.71 W Depth 27 methods
Core condition Exceptent Date Described 10 Jan 160 H Fermer
Physiographic location Acustinet River New Beston Harbor

Detailed Description

1 | 5 | 4 |

7

34.7

607

0-123
SILIC CLAY WITH DETRITUS GRADES TO SILIC CLAY/
DETRITUS
5 Y 3/2 dark olive gray - below oxidized surface
layer, color grades from black near top to color
of surface sediment at 60 cm
fairly homogeneous excepting small to medium shells
in the interval 15-3 cm
relatively soft, fairly silry lutte, becomes somewhat sandler in basal 15 cm, pebble at 88 cm

end of core

275

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SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

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				einsfolbs8				
	E .			Sections and sections are sections and sections and sections are sections and sections and sections are sections are sections and sections are sections and sections are sections are sections and sections are sections are sections and sections are secti	4	=	6	
			Material	219410	2	1		
	123		M SMO	Discoasters				
		CES (	Stogenous	sboqoratq				
88	1gth	ESTIMATED ABUNDANCES (%)	7	2 sitzzolonnaM				
0.	Total Core Length	D A8	1	2m6107				
Station No.	Cor	IMATE		Clay	75	0.5	38	
Stat	Tota	EST	Inorganic Material	Volcanic				
			C PE	Zeolites Z				
			gani	Micronodules				
			Inor	Detrital	25	45	55	
10/75				TYPE	silic clay	silic clay/ detritus	silic clay/ detritus	
11100	No.			35	sili	Sili	silic cl detritus	
Expedition	Leg No			LEVEL		87	122	

Ship ASTERIAS

Poge 1 of 1

Ship Assessas Cruise 10-75 Leg Sto. 85 Core No. 12 GC
Total Length 3 cm. Lat 41, 38.12 N Long 10' 55.24 W Depth 5.3 matura.
Core condition Excessors

Date Described 15 max 16 by 4. Farmer
Physiographic location Acusarus Handse New BEDrace Handser

Detailed Description 91-0 Perimene Ser -Lithologic

10 YR 3/2 very dark grayish broom, a distinct tusty red huse is apparent in the top 5 cm and becomes fainter lower in the unit the top 5 cm and becomes fainter lower in the unit the offer section sediment is very dark broom to black malchy, organic-like, fairly slity lutite subtle H<sub>2</sub>S ador from much of core 16-23 milling Subtle H<sub>2</sub>S ador from much of core 5. Sinc ClarV DETRINS 10 YR 3/1 very dark gray again, the exposed surface sediment is somewhat lighter colored soft, mulchy, slity lutite with numerous pelecypod shells 1 1 

5 1.4

SILIC CLAY/DETRITUS
5 Y 3/2 dark olive gray; very dark gray below oxidized surface bimogeneous excepting scattered pelecypods somewhat mulchy, silty lutite

100-

and of con 14 3

Pleistrene

end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 12 OC	Station No. 85	Total Core Length 39.
AST	expedition 10/75	
Ship:	Expeditio	Leg No.

SCALT OCHUHS

					EST	IMATE	ESTIMATED ABUNDANCES (%)	NDANC	ES (	1				
		Inor	Inorganic		Material			8	Biggenous	M Sno	Material	10		
			Silt &				1	Calc	Calcareous			Sili	Siliceous	8
LEVEL	SEDIMENT TYPE	Detrital grains	Micronodules	26011168	Volcanic sbranks	Clay	Forams	2[1220]onnsN	pteropods	Discoasters	shers	2mo 1 & 1 Q	Radiolaria	Spondes
2	slightly silid	24				73						2		-
	detritus													
2*	silic clay with detritus	27				67						5		-
20	silic clay/ detritus	30				65						6		2
38	silic clay/ detritus	31				55						12		2
		2* H	S es	cons	Has a considerable quantity of	nb e	ıntit	jo /	bedo	o sar	ten	ppaques often similar	1	
		- 62	whie	th in	In form to pyrite, these are generally not present in 2 which instead has a rusty yellow hue, 2* was sampled	as a	rust	re ge	low	nue;	* * *	s sam	pled	
			E EO	pder	ffom under the oxidized layer from which	idize	d lay	er fr	B 0	1ch	3	take	9	

Ship Asterias Cruise 10-75 Leg Sta Ble Core No 136c.
Total Length 6.3 cm. Lat 11'38.73'N Long 70' 55.28'Wepth 10.9 metals
Core condition Excellent Date Described 11 Jun 16 by 4. Farmer
Physiographic location Acustunes River New Bedroad Harber

Detailed Description Meightene - SLT SLT Lithologic

SILIC CLAY/DETRITUS S 7-10 0-7 SLT-T.S.T 1 | 3 | 0

exposed surface

SLICHTLY SILLC CLAY/DETRITUS
10 YR 4/4 dark yellowish brown, gray to dark gray below surface layer marbling of yellow browns is extensive somewhat spongy, quite silty lutite 10 YR 3/2 very dark grayish brown black mottling with H<sub>2</sub>S odor below mulchy, organic-rich, silty lutite 10-22 DETRITUS [. SL] 30 → SLT पप श्र

SILIC CLAY WITH DETRITUS 5 Y 3/2 dark olive gray, black below oxidized surface quite uniform, excepting a few small, scattered shell 10 YR 4/2 grayish brown, gray below surface layer inclined laminations ( $\approx$  13°) of very dark gray, very dark grayish brown and dark yellowish browns: firm, laminated, fine sand S, inclined and somewhat distorted 22-29 fragments SLT ---17 €00

<del>արարակավավատրակակակակակակակակակակակակա</del>

10 YR 5/1 gray

The large, very distorted classs of very dark grayish
brown, mulchy luttle at 32-35 cm and 37-38 cm;
between these is a large, dark gray discoloration
between these is a large, dark gray discoloration
at the state of the small pebbles that seem to be associated with the contacts of the classs mulchy, spongy, fairly silty lutite S, very horizontal DETRITUS/UNFOSSILIFEROUS CLAY The Ballon of 11 Oless Trenc

DETRITUS/CLAY

2.5 Y 6/2 light brownish gray inclined laminations (about 15° but slope opposite to laminations in unit #3 above) of 7.5 YR 5/6 strong brown

ompact, coarse silt except laminations (36-48 cm) which are filme sand, laminations from 48-54 cm are very filme and texturally indistinguishable very disturbed

VISUAL CORE DESCRIPTION

Page 2 of 2

Core No. Sto Leg Ship ASTE RIPS Cruise 10-75

Lithologic 507

Detailed Description

57-63
DETRIUS
DETRIUS
DETRIUS
Strong brown is smeared about over the sands and the browner lutite clasts and emphasizes the very disrupted nature of this unit
Very firm, medium sand with irregular clasts of silty lutite

end of core

Page L of L

VISUAL CORE DESCRIPTION

DERRITUS/SLIGHTLY SILIC CLAY
10 YR 4/1 dark gray, pales a bit with depth,
slightly darker under surface sediment
laminations of very dark grayish brown and dark
brown are present in top 5 cm; large, dark olive
gray clasts appear in basal 6 cm
very fine sand grades to coarse sand; below 46 cm,
a couple large (4 cm, silty lutite clasts are
found in the coarse sand
49 cm; small fragment of coal Ship ASTERIAS Cruise 10-75 Leg Sta. 87 Core No 14 GC.
Total Length S.A. cm. Lat 11:38.45 N Long 70:55.23 W Depth 10 mesters
Core condition Excellent
Physiographic location Acustinet Kiven New Bestras Harbers SILIC CLAY WITH DETRITUS

10 YR 8/2 very dark graytsh brown, black with H<sub>2</sub>S

dor under exidited surface

subtle rusty brownish exidation is generally

present throughout, but especially notable in a

lighter zone from 7-9 cm

somewhat sponsy, silty lutite

long fragment of wood rests along edge of core

from 5-14 cm homogeneous excepting a few shell tragments at 28 cm and a bit of organic detritus(?) at 36 cm mulchy, spongy, fairly silty lutite SILLC CLAY WITH DETRITUS 5 Y 3/2 dark olive gray, black with  $\rm H_2S$  odor under oxidized surface Detailed Description G 18-38 38-52 0-18 st 1-1. . . 214 . . end of con 20 Just -Lithologic 100 Pleistune արուրակումութակատ<del>իում</del> 7 % tr tr 17 1 sabuods Biogenous Material
Calcareous Siliceous Radiolaria CH Diatoms tr 7 Others 63 Discoasters ESTIMATED ABUNDANCES (%) pteropods Station No. 86 Total Core Length \_ Core No. 13 GC sffssofonneN Forams CISA 62 67 2 63 25 20 Inorganic Material sparys Stasslov Zeolites Micronodules 33 20 56 Detrital 28 75 80 detritus silic clay with detritus detritus/ detritus slightly silic clay/detritus AST Expedition 10/75 detritus/clay silic clay/ unfoss clay SEDIMENT TYPE Leg No. Ship: LEVEL 53 56 31 2 6 17

Poge 1 of 1

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Ship Asterius Cruise 10-75 Leg Sta 92 Core No. 16-GC. Total Length 79 cm. Lat. 41, 32.81 N Long 70 5426 w Depth 13.9 Actors Core condition Exercent Date Described 5.1mm 16 by 41 Forthold Physiographic location Buzzaro's BAT APPROACHES TO NEw Bedford Hopping	Detailed Description		0-79	SILIC CLAY DETRITUS
Ship ASTERIAS Cruise. Total Length 79 Core condition Excess. Physiographic location 2	Lithologic	Pleis Ment	4 4	
SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES	Core No. 14 GC	Station No. 87	Total Core Length 52 cm	ESTIMATED ABUNDANCES (*)
SMEAR SLIDE DESCRIPTI	Ship: AST	Expedition 10/75	Leg No.	

4	1	1	1 1	<del>                                    </del>	. SLT SLT	4.	٠ ١ ١	St.   36	1 =	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	¥ .	112	\ \ \ \			Bottom of core	
1	(			, , , , , , , , , , , , , , , , , , ,	3	1111	\$	mhi	& l	1111	39	mil	1111	70 1	.1	00	uli
		1	S	Spondes	~	-	Ħ			I							
			Siliceous	Radiolaria													
C		a J	Sil	2mots tQ	5	9	tr										
		ateri		others		2											
Station No. 82 Total Core Length 52 ESTIMATED ABUNDANCES (*)	Biogenous Material	Sn	Discoasters									1					
	CES (	iggen	Calcareous	pteropods													
136	JNDAN	8	S	sffssolonns/													
tion No.  al Core Length TIMATED ABUNDA			Forams									. 1					
3	IMAT			Clay	74	99	10										
Station No. 87 Total Core Length	EST	erial	P	Volcanic sbasics													
		c Mat	Silt & Sand	Zeolites													
Leg No. ESTIMATED ABUND	gani	Silt	s:/[ubononoih														
	Inor		Setrita) enterg	20	27	06											
.0.				SEDIMENT	silic clay	silic clay	detritus/ slightly silid	clay									
red no.				LEVEL	2	30	17										

0-79
SILC CLAY/DETRITUS
5 Y 3/2 dark olive gray
no mottling, but fine, scattered biotite(?)
fragments Ailtter on the sediment surface
quite silvy/sandy lutte grades to a finemedium sand below 55 cm; a few shell
fragments are scattered throughout the
ccit and a couple larger pieces sit at
the bottom; 46 cm - small, rounded pebble

end of core

Page 1 of 1

Ship Affekhiz Cruise 10-15 Leg Sto. 97 Core No. 176-C.
Total Length 87 cm Lat 41-25-48-in Long 10-55-11-V Depth 13-0-m.
Core condition Excellent Described (1-10-17) by Foreign Physiographic location Bizarics and Approximates Tokey Sepano. Minister.

Lithologic

Detailed Description

DETRITUS/SILIC CLAY

Y 4/2 ollve gray
except for complete shells and fragments
core is homogeneous throughout
firm, quite exity-sandy lutite with
entire coxistent recurrent coxistent to the coxistent coxistent to the coxistent coxistent

of pelecypod fragments are found 16-22 cm, 47 cm, 65 cm, 75-79 cm, nicely preserved corepidula shells are at 58-60 and 81-83 cm, a large granite pebble is at the base of the core

end of core

Methodo Log ond of ure: 87 um. <del>andantadanhadanhadanhadanhada</del> . 001110 SGALIE sabuods Biggenous Material
Calcareous Siliceous E 0.1 Smotsid 5 SJa410 Discoasters 79 ESTIMATED ABUNDANCES (%) pteropods 92 Total Core Length s lizzo tonn s N Station No. 11 Forams Clay 30 23 67 Volcanic Inorganic Material 29311095 Micronodules Setritad enterg 04 69 10 10/75 silic clay/ detritus silic clay/ detritus silic clay/ detritus

SEDIMENT

LEVEL

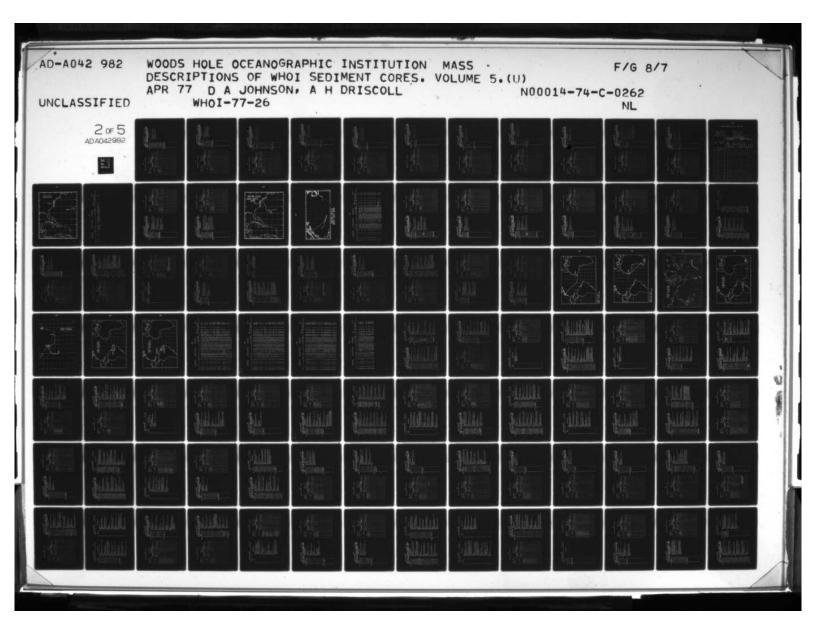
06 16

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 16 GC

AST

Expedition Leg No.



17 GC

Core No.

AST

Ship:

Leg No.

LEVEL

20 86

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VISUAL CORE DESCRIPTION

Page 1 of 1

Ship Melon Cruise 10-75 Leg — Sta. 99 Core No. 186C.

Total Length 134 cm. Lat 4/185274 Lang 20-52.12 N Depth 11.5 m.

Core condition Expected By Minespauses to NEW RED HAR Boot.

Physiographic location By Expects By Minespauses to NEW RED HAR Boot.

Detailed Description

5 Y 4/2 dark olive gray several nebulous, irregular, yellowish "rusty zones" (very likely post-coring alteration) 13-23 cm (faint), 29-50 cm, 75-77 cm, 89-92 cm very sity futter with scattered sand grains and shell fragments plus an extremely well-preserved pteropod at 58 cm

end of 180: 1340m. 571 : 951 sabuods Biogenous Material
Calcareous Siliceous strafotbas EO Smoterd 7 ţ SJAHTO 87 ESTIMATED ABUNDANCES (%) pteropods 16 Total Core Length \_\_ sfissofonnsM Station No. \_\_ Forams 17 24 32 Clay Inorganic Material Silt & Sand spaeds shards setilosz Micronodules 75 20 55 Expedition 10/75 detritus/ silic clay detritus/ silic clay detritus/ silic clay SEDIMENT TYPE

0-134

end of core

Control of Control of

· VOY

VISUAL CORE DESCRIPTION

Page 1 of 1

Total Length 94 cm Lat 4/° 53 64.4 Long 2'52 99.4 Depth 4/5 8.

Core condition EXCELLENT Date Described 1774-EL by Alberta.
Physiographic location Birethers Bry Amenauks in New Bears pursue the Lithologic

Detailed Description

134 18 GC 99 Total Core Length \_ Station No. \_ Core No. Expedition 10/75 AST Leg No. Ship:

Biogenous Material
Calcareous Siliceous E ESTIMATED ABUNDANCES (\*) Inorganic Material Silt & Sand SEDIMENT

12 SMUKARA HIM | | | | | | | | | Meistura \_\_\_\_\_ 58 Acistican B 35 15 Spondes

Binslotbea

Discoasters

sffssofonnsN

Forams

Clay

spueus Aoj canto

TYPE

LEVEL

Sections Micronodules Detrital grains

Diatoms

Others

0-94
SILIC CLAV/DETRITUS
5 Y 3/2 dark olive gray
except for occasional shell fragments and
faint, rusty fost-coring zones, core
is homogeneous throughout
firm, very silty lutite with varying amounts
of coarse material within, generally increasing with depth, but occasionally concentrated in lenses or pockets 20-60 cm

end of core

1001

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45 51

25 45 35

silic clay with detritus silic clay/ detritus silic clay/ detritus

133 07

tr

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 19 GC

AST

Ship:

## VISUAL CORE DESCRIPTION

Page 1

Ship Basebans Cruise 7.76 Leg 510 108 Core No 20 GC.
Total Length 140 cm. Lat 41° 52' N. Long 20° 46.25' W Depth 14.5 was
Core condition Excesser Lat 41° 52' N. Long 20° 46.25' W Depth 14.5 was
Physiographic location Basepand's Bay appresents to New Badfald Harbur

Lithologic

Detailed Description

0-140 SILIC CLAY/DETRITUS
SILIC CLAY/DETRITUS
5 Y k/1 dark gray, slightly darker below oxidized
surface and turner scopt for scattered, white bivalves
from 26-30 and 41-45 cm
very slivy luttle with several coarser, sandy laminations as 79, 8 and 112 cm; occasional small pebbles
are found throughout

end of core

1707 Meustocene miniminimi 70 09 Spondes Biogenous Material
Calcareous | Siliceous Radiolaria tr EF t Offiers Discoasters 96 ESTIMATED ABUNDANCES (%) pteropods Station No. 100 Total Core Length sfissofonnsN 23 99 Clay Volcanic Inorganic Material Silt & Sand Setflost LI Micronodules 65 5+ 04 10/75 silic clay/ detritus silic clay/ detritus SEDIMENT detritus TYPE Expedition Leg No. LEVEL

30 93

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4 . . . | 81 8<sup>2</sup>/<sub>2</sub> 1775

8 8 . |

SLT

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end of cone 140

Page / of /

Ship Asterias Cruise 7.26 Leg = 510 109 Core No 21-GC.
Total Length 1/4 cm. Lat 11-32 57 w Long 12-51 ff w Depth 15 4 mets
Core condition Excerter Date Described 12 Nov 76 by H Finance Physiographic location Bussera's 80y Appressize to New Stores Horber

Detailed Description

. 51.7

Lithologic

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Reistocene

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20 - 51.7

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

tion 7-76	Station No. 108
-	Total Core Length 140 cm

Leg No. Total Core Length Inc. cm  ESTIMATED ABUNDANCES (*)  Inorqanic Material Biogenous Material			*	•		86	8	Reistrene					
				1 /	1 0	2 0				,			
1	-	S	sabuods	0	-	-							
	-	Siliceous	sinsloibsA	1	:								
	P	Sil	smotaio	u									
1	ateri	T	others										
	Suc M	Sn	2195 scoas to				(3)						
2	oden	Calcareous	pteropods				stos						
	9	S	slissolonnsV				asb						
2	1		Forams	:			bers						
5			Clay	9	77	0	al fi						
	erial		Volcanic sbasics				industrial fibers, asbesto6(?)						
1	TO CO	San		17			•						
	dani	=	sə [ubononɔ iM										
1	Inor		Detrital grains	0,	10	17.7			T			T	
L	•	+.	ано вако	1,2	, i								
			SEDIMENT TYPE	silic clay	silic clay/	silic clay/							
			LEVEL	100	70	139							

F.F.

35.7

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and of cone: 119

0-114 5 Y 1/1 dark gray, slightly darker below oxidized surface no motiling, but tiny black fleeks are abundan throughout, also, soattered bivalve fragments present in the following intervals; 7-17, 34-46, and 9-80 cm very slity lutite with an occasional pebble

\*

end of core

, SLT

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742

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4

Core No.

ASTERIAS

Ship:

VISUAL CORE DESCRIPTION

Page 1 of 1

Ship Asteins Cruise 7-76. Leg - Sto 110. Core No 22-66.

Total Length 63 cm. Lat 11°346 M. Long 70°52.7 W Depth 8.8 mets.

Core condition Excercent Date Described 12 Nov 16 by 11. Frience.

Physiographic location Existences Say American in Nov Sevience Hereine.

Lithologic

1

Log

Detailed Description

end of core

3 2 Pleistand und of une 63 on **64** Perstand 70 2 8 Spondes Biggenous Material
Calcareous Siliceous sinsloibeA 9 1 Diatoms ST9410 114 industrial fibers, asbestos (?) Discoasters ESTIMATED ABUNDANCES (%) pteropods Total Core Length Station No. 109 sitssofonnsM Forams 30 Clay 04 Volcanic Shards Inorganic Material Silt & Sand Micronodules o o घटन च Detrital grains tr 50 25 53 7-76 silic clay/ detritus silic clay/ detritus silic clay/ detritus SEDIMENT TYPE Expedition Leg No. LEVEL 113

09 14

SILIC CLAY/DETRITUS

5 Y 2.5/2 black oxidizes to 3/2 dark olive gray
nontting,

(~10 cm); coarse sand, pebbles, and shell fragment lamination at 16 cm - grades from coarse sand
to amail gravel in lower 20 cm; several large oyster shells appear in this same interval

VISUAL CORE DESCRIPTION

Page / of /

Ship Astrains. Cruise 7.76. Leg — Sto. 113. Core No. 25 GC.
Total Length 78. cm. Lat. 11.39.9' M. Long. 10.55.6' W Depth 88 makes
Core condition Excession 2 cm. Date Described 15 No. 76. by H. Frincing.
Physiographic location 3 cm. and 2 cm. 2 cm. Miw 3 core of the Bree.
Lithologic

60

Detailed Description

0-78 SILIC CLAY/DETRITUS 5 Y 2.5 black oxidizes to 3/2 dark olive gray bomogeneous except for scattered bivalve fragments throughout fine to medium sand in lutite matrix

end of core 7 Rey toward 8 40

Biogenous Material
Calcareous Siliceous

Inorganic Material Silt & Sand

E

38

Total Core Length

Leg No.

Core No. 23 GC Station No. 111

Ship: ASTERIAS Expedition 7-76 ESTIMATED ABUNDANCES (%)

3 T 09

Radiolaria

Diatoms 014615 Discoasters

pteropods

13 15

detritus detritus

36

s[tssofonnsN Forams

Clay

Spreds

Detrital grains Micronodules

SEDIMENT TYPE

LEVEL

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Pleustanden de la company de l

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VISUAL CORE DESCRIPTION

Page / of /

Ship Astrauts. Cruise 7:76. Leg — Sta. 114. Core No. 26 6C.
Total Length. 86. cm. Lat 41° 349'4. Long 20' 542'4 Depth 79 mates
Core condition. Exception Date 248'8 Depth 18 Histories
Physiographic location Buszakas's 344 Apprehenses to New Bearing Harber

Detailed Description

Lithologic

Meightone 3 - 8

113

Station No. \_

7-76 ASTERIAS

Expedition Leg No.

Ship:

S GC

Core No.

Total Core Length

Inorganic Material Silt & Sand

0-86 SILC CLAY/DETRITUS - 5.22 dark olive gray SY 2-5/2 black oxidizes to 3/2 dark olive gray very uniform except for scattered bivalve fragments which see primarily concentrated in the intervals 0-3, 72-73 and 79-82 on fine to medium detrital sand in lutite matrix

end of core

3 20 \$ Spondes Biogenous Material
Calcareous Siliceous StasfolbsA E Diatoms Ofhers 78 Discoasters ESTIMATED ABUNDANCES (%)

34 প্র **3**0 80

preropods

sfissofonnsN

Forams

Clay

Volcanic

Micronodules Detrital

SEDIMENT TYPE

LEVEL

30

09 83

silic clay/ detritus

detritus

16 H

Pley Bure

1 8 m

industrial fibers asbest

Page 1 of 1

VISUAL CORE DESCRIPTION

Ship AZTERIAZ Cruise 7-76 Leg — Sto 115 Core No 276C.

Total Length 15 cm. Lat 41-3541 Long 10'5471 Depth 5.0 meters

Core condition EXELLENT

Date Described 15/14/16 by 1.5 meter

Physiographic location Buzzaros Bry APPResentes To New Repeace Harbon.

Detailed Description

thologic

0-15
5Y 3/2 dark olive gray
homogeneous throughout
medium to coarse sand in a silty lutite matrix.
A few clam shell fragments scattered throughout.
End of core.

d 173 E

1 km

E

98

117

Station No.

7-76 ASTERIAS

Expedition . Leg No.

Ship:

Core No. 26 GC

Total Core Length

ESTIMATED ABUNDANCES (%)

Inorganic Material Silt & Sand

PIEIShiene 3

<del>արդադադարարակարտարարարարար</del>

Biogenous Material
Calcareous

m Radiolaria

pteropods

sfissolonneN

Forams

Clay

Volcanic

Detrital
grains
Micronodules

SEDIMENT TYPE

LEVEL

42 45

tr

45

silic clay/ detritus silic clay/ detritus

43 85

7.8

detritus

Diatoms 9 014410 Discoasters

\*industrial fibers, asbe

Page / of /

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

الأع ا	5 Y 2.5/2 black, oxidizes to 3/2 dark clive gray fine, sady lutte with numerous shell fragments concentrated particularly at top and bottom of unit 8.15 inclined srticularly at top and bottom of unit 8.15 inclined srticularly at top and bottom of unit 8.15 inclined mothers of Y 2.5/2 black oxidizes to 3/2 dark clive gray to mothling smoother, fairly silty lutite 5. textural 5.47	Silderly Silic CAY DEFITUS  5 Y 2.5/2 black oxidizes to 3/2 dark olive gray  3 X 2 cm gray sitt clast at 28-31 cm medium to coarse sand in lutte matrix, with numer- ous shell gragments throughout  17-56  Silic CLAY WITH DEFRITUS INTEREDDED WITH DEFRITUS  5 Y 5/2 clive (luties) 5/1 gray (Silt) subtle laminations of olive, apparently distinct from the silt, appear in the lutite justified relatively silf unit of interpeded silt and slightly silty lutte; the silt laminations are quite thin except for a 2 cm bed at the upper contact end of core
Ship ASTERIAS Cruise Total Length 58 cr Core condition 2 ccs Physiographic location Lithologic Log		
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES  Core No. 27 GG  Z 7 6  Station No. 115  Total Core Length 15 cm	zendio ze	
	Safreyon Sites of Street Stree	
Ship: Asterias Expedition 7.76 Leg No	SEDIMENT TYPE TYPE Detrited	7 Detritus 78

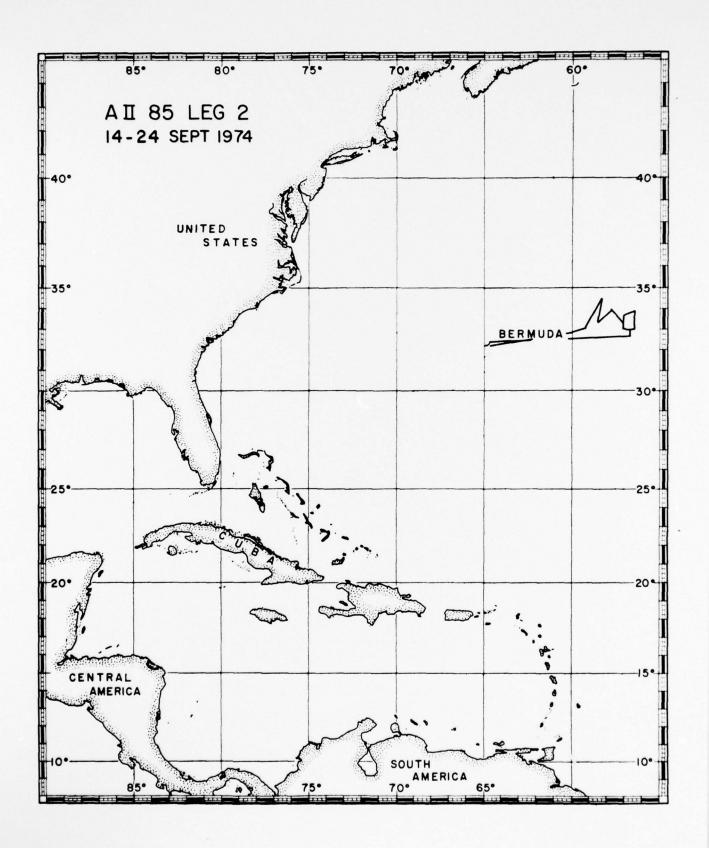
VISUAL CORE DESCRIPTION

Page / of /

e No 29 GC	Depth B.2 m	16 by H FARME	
Ship ASTERIAS Cruise 7.76 Leg Sta. 117 Core No 29 GC	ong 70 519'v	Described 15 Nov 7	HARBOR
Leg	38.9'N	Date	NEW SEDFARD 1
7-76	Lat 41	LENT	NEW
Cruise	58 cm	EXCE	location
Ship ASTERIAS	Total Length	Core condition	Physiographic location

Detailed Description		0-51	SILIC CLAY WITH DETRITUS 5 Y 3/2 dark olive gray	subtle, thin, dark band at 23 cm	smooth, fairly slity lutile, with scattered molluscan fragments in top 5 cm	51-5	5 Y 3/2 dark olive gray small (1 cm), tlack, organic-rich spot, 57 cm;	smaller, light gray, sandy lutite clast, 58 cm;	+	shell fragments	end of core																		
Limologic	Perstame 3			20 1		1 04	\		I CASIM MICH.	That of cont	\$ 85 TT	Т		111	т.	-11	111	,,,	l	,,,,,	11	7	لس	<b>.</b>	'T	,,,	· Tr	111	 17
		<b>E</b> 5		Material	sicareous Siliceous		2 Binb	ers mote fott	P84	0.0	0														,				
0. 23.60	Station No. 111	otal Core Length 38	ESTIMATED ABUNDANCES (%)	Biogenous	Calcareous		Sm.6 i s s o	ron Tonn	)}d	757	50 tr	+		66	+	fibers, asbestos?								0					
Core No.	Statio	Total	ESTIM	nordanic Material	Silt & Sand	sə	lubo	c.con	, IM	CV.	tr.			8		*industrial fibers,													
ASTENTAS	Expedition 7-76	9.		ļ.		SEDIMENT	TYPE	tint		slightly silid clay/detritus 70	Silic clay/		siliferous	ciay															
Ship:	pedx	Leg No.				EVE				E E	13			26															

ship:	ASTERIAS				core	. NO.		29 GC		-					
Exped	dition $7-76$				Sta	tion !	No	117		_					
Leg N	lo				Tota	al Co	ne Le	ngth		58		cm			
						TIMATE	D AB	UNDAN				. ,			
		Ino	rgani Silt	& Sar	terial nd			Cal	iogei care	nous I	Mater	Sil	iceo	15	1
LEVEL	SEDIMENT TYPE	Detrital grains			Volcanic shards	Clay	Forams	Nannofossils g	Pteropods	ş	Others	Diatoms	j.a		PYRITE
2	silic clay with detritus	25				58					tr	9		3	5
57	detritus	75				16						3		3	3
						7									



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1 0 0	CN C	183.	198.
	DE P 4 1	4530 ·	089
	SAMPLE DE. DATE SAMPLE DE. DATE SHIP CRUISE LEG STATION NUMBER VICE YRMHDA LATITUDE LONGITUDE TYPE GOUARE NUMBER DEPTH DEPTH OFFICE PROV. TYPE CODE PEMARKS	4000 2	0200 13 74 921 33 54.1.4
***	7 C C C C C C C C C C C C C C C C C C C	114.	A 22 4
	× 2 × 2	*	- 3 L
	CUTTON	7 36.6	ICH MA
EVAL . 77	اوم عن	7	Z Z
RETRI	LATITU	₹ 40.7	3 54.1
STATION DATA RETRIEVAL DATE: 17:07 JUN 03,177	μQ	120 3	
TATION ATE:	0 y	1.	24 S
SO	40 × 00 × 10 × 10 × 10 × 10 × 10 × 10 ×	13	25
	SANDA PRACIN	0000	0000
	STATION	*C00 5	2000 2
	SE LEG		
	CAUT	411 85	A11 85
	10	117	1

135

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Ship AL Cruise 85 Leg II Sta. 4 Core No. 46C.
Total Length 185 cm. Lat. 32.40.77 Long. 57.56.67 Depth 4550 m. Low.
Core condition Excellent Beaning Baserised 226-076 by J. Brede.
Physiographic location BEANINGA A15E.

Page / of /

VISUAL CORE DESCRIPTION

sabuods Biogenous Material
Calcareous Siliceous -Binslotbea EJ -9 Diatoms tr 8 tr 5 Ofhers 9 183 Discoasters ESTIMATED ABUNDANCES (%) ä t preropods Total Core Length \_\_ Core No. 4 GC 45 20 07 35 35 sitzzotonneN Station No. 44 3 Forams 57. 2 51 35 53 Clay Volcanto Inorganic Material Zeolites t 4 r, Mi cronodul es Suleub Detrital 5 85 AII SEDIMENT silic coze silic ooze calc ooze calc ooze calc ooze TYPE Expedition Ship: Leg No. LEVEL 100 180 20 73

<del>արարարարակակարևարարակավատ</del>

tr

SOMPH OCHIEN

O-72

CALC OOCE
7.5 YR 5/4 brown grades to 10 YR 6/3 pale brown and back to 7.5 YR 5/4 brown common intermottling of the colors above in the gradational zones and many small, gray and olive green, freekle-like mottles moist, slick lutite with scattered forams and occasional small, lithified inclusions (clay)
6, textural CALC 002E
2.5 Y 4/4 olive brown and 7.5 YR 5/4 brown
complete mixing of the two colors above
very stift, lithified lumps combine to make a compact
zone with a matrix of slightly silty lutite very moist, slick lutite with a trace of forams and a few lithified lumps CALC-SILIC OOZE

CALC-SILIC OOZE

OF 87.2 propries brown
a few freckle-like olive mottles and specks
140-169 cm Detailed Description end of core 74-183 Nesstand Section 10. 44 son of core: 18300.

Parkene . 28

166.

VISUAL CORE DESCRIPTION

Page / of /

Ship AIL Cruise 85 Leg IL Sto. 6 Core No. 84C.

Total Length 198 cm. Lat 35 54.174 Long. 512/174 Depth 4430ason.

Care condition Excellent Date Described 22 parts. by 1.8446.

Physiographic location SERMUDA RISE. Total Length 198 cm

Lithologic

Detailed Description

0-100

CALC DOZE

7.5 YR 5/4 brown grades to 10 YR 6/4 light yellowish
Prown and back to 7.5 YR 5/4 brown in two sequential
patterns
common, faint intermottling of the colors above especially
in the gradational interfaces
moist, slightly slithy luttle with foram content ranging
from scattered to abundant
Sharp - irregular and mottled

100-198
UNFOSSILIFEROUS CLAY WITH MOTTLES AND INCLUSIONS
OF NA MICROMODULES
OF NA MICROMODULES

5 Y 6/3 pale olive and 2.5 Y 6/4 light yellowish brown common alternation of small zones of the above colors throughout the unit; heavily mottled with dark olive gray and black, slick, Mn-rich lutite; a bit of brown intermottling is found at upper unit contact more compact but slick lutite with a few scattered, lithified lumps throughout

9 6  end of core

riestrant and of con: 19800

137

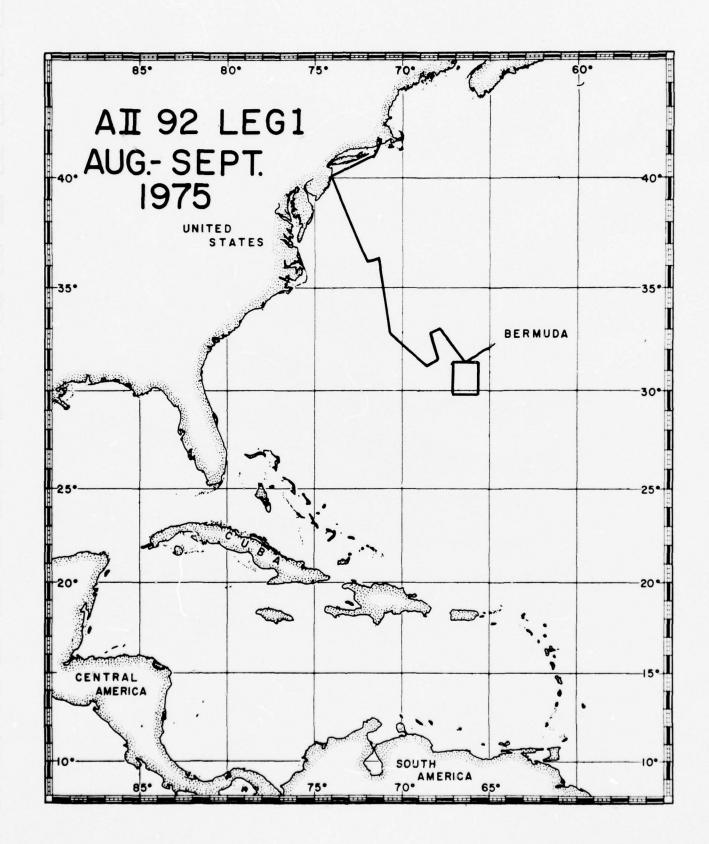
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

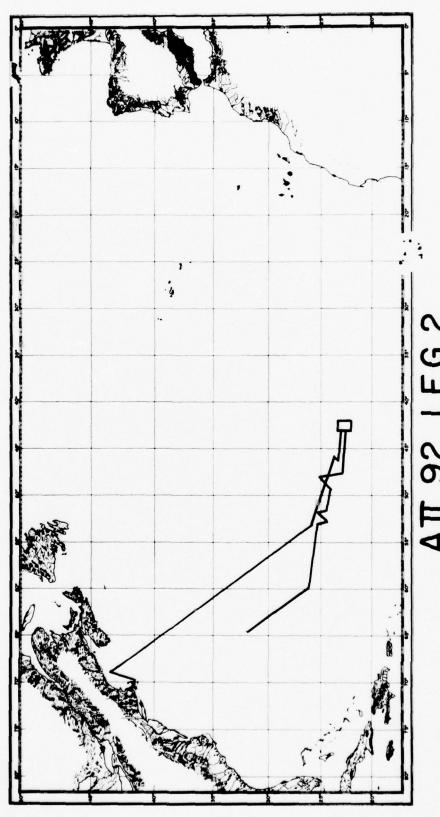
Station No. Core No. 8 Ħ Expedition Ship:

Leg No.

198 Total Core Length

		S	1000003										_	
		Siliceous	StasfotbsA											
	9	511	2mo1610											
	ater		219450	12	9	5	נ	2						
£)	Biogenous Material	SAS	Discoasters											
ES (	oden	Calcareous	Pteropods											
UNDANG	8	Cal	sitzzolonnaM	45	20									
0 AB			Forams	00	12									
ESTIMATED ABUNDANCES (%)			Clay	32	23	88	45	87						
EST	Material	P	Volcanic											
			2eol1tes											
	Inorganic	Silt & Sand	Mi cronodul es	2	2	2	55	5						
	Ino		Detrital Snisy	2	4	9		80						
			SEDIMENT TYPE	calc ooze	calc ooze	unfoss clay	unfoss clay/	unfoss clay						
			LEVEL	-	95	105	135	197						





AII 92 LEG 2 SEPT- OCT. 1975

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	SAARIO SAARIO SAARIO SAARIO	13	13	13	13	13	13	13	13	15	15	15	15	15	15	15
	DREDGE GR SAKPLE VGLUME	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	775.	•64	579.	19.	.069	80 80	1004.	1 45.	516.	141	526.	109.	275.		125.
	DE 9 1	4915.	M 4915.	4969.	4969.	4951	4951.	+954.	4924.	* * * * *	. 8 + + +	4422.	+455.	3862.	4431.	4431.
::	CORE OR DREDGE NUMBER		D	_	0002	115.06 0003 SFOT MENT POND		115-06 0004		77.23 0005			77.33 0006	PILOT CORE REPEVETRATION SUSPECTED N 43 31.6' N 9 77.33 0001 386	77.24 0007 4431.	SEDIMENT BOLD 77.23 0007 SEDIMENT BOLD
***	S Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	9 115.06 0001 SEDIMENT POND	115.06	12	115.06 0002		115-06 0003	11501	115.06 0004	77.23	77.23	77.33	77.33	VETRATION 77.33	DERCENT OF	SE21ME 77.23
ii	FIX ATITUDE LONGITUTE TYPE	3.5.€ 9.3.0×9.0	WINCH FAILURE; F N 66 3.5:4 9	66 7.5' 9 PHYS18G. PRPV:	FLOW IN 37-579	0 46 6.21W 9 W 9 W 9 W 9 W 9 W 9 W 9 W 9 W 9 W 9	SEC. SED. TYPE	2 3 4 5 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	17.7.1 66 5.0 4.0 9	9 3-9-00 E# N	6 7-9-00 E4 N	0 7 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 110	31.5' N 9	10 NT DE	58.7.N 43 30.5.W 12 01YSI9G. PR9V:
14	LONGI	* 56 3.5' A	1997				66 SE	17.71 17.71 19.00 10.00	90 90 00 00 00 00 00 00 00 00 00 00 00 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	#3 3C	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3.8.5 8.7.88 8.78 8.78 8.78 8.78 8.78 8.78 8.78 8.78 8.78 8.78 8.78 8.78 8.78 8.78 8.78 8.78 8.78 8.78 8.78	11.97 43 33	SIGNIFICANT	43 3( 43 3( 48 196)
ETRIEVAL	TITUDE	16.01	30 16.0'N	18.6.2	18.6.2	19.81	SEC. SI	17.71	17.7.1	55.512	55.51	2.8.0	8.0	0 a a	58.7.1	78.7.8E
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STATION DATA RETRIEVAL DATE: 17:07 JUN 63:177	DE. DATE	15 75 9 4	#COMMENTS##	15 75 9 5	**CBMMENTS**	15 75 9 /	**COMMENTS**	15 75 910	75	15 75 925	75 925	75	26 75 926	13 7510 1	7510 1	**C#MENTS** 26 7510 1
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	E	-	-	-	-	-	1		-	ď	N	N	C)	N.	(VI	r
••	SHIP CRUISE LEG STATION	6	66	6	6	6	6	6	66	6	65	65	6	Č,	66	6
	100	111	111	114	111	114	111	114	111	A11	111	111	A11	114	111	111

Page 1 of 1 141 VISUAL CORE DESCRIPTION

Ship ALL Cruise 92 Leg 1 Sta. 1 Core No. 19C.
Total Length 715 cm. Lat. 3016.00 Long. 161.055 Depth 4915.cm.M.
Core condition Extended
Physiographic location (EDIMENT PMID ASSPLINTED WITH MENETY MAINTY MA. Lithologic

-6-20
CALC 002E
10 YR 5/3 brown grades to 5/4 yellowish brown - extensive mottling is primarily responsible for this color change slipy lutite with scattered to abundant forams, becomes considerably slicker with few forams Detailed Description 0-6 VOID 1, MEISORNE XOI D 古古り 100 11

20-39
SIGGILY CALC CLAY
10 FK 4/4 dark yellowish brown
10 FK 4/4 dark yellowish brown
10 FK 4/4 dark yellowish brown
very small, minor morthing from above
very small, minor morthing from above
very small, minor morthing from above
S
39-46
SIGGILY CALC CLAY WITH UNFOSSILIFEROUS CLAY PAVEMENT
10 FK 4/3 brown, 7/3 very pale brown and black mixed
together randomly in a partially broken pavement of
Mn (minor) and pale to white lithified material

REISTOLENE

3

46-775
10 YR 4/4 dark yellowish brown
10 YR 6/4 dark yellowish brown
10 YR 6/4 built below pavement
NOTE: Due to loss of control of the winch after
pullout this core was repenetrated at a speed of
150 m/min.

end of core

**\*** Ammummuminum

775 वर्ष की प्रथा नामाना

3

SMEAR SLIDE DESCRIPTIONS - N.H.O.I. SEDIMENT CORES

E 775 1 PC Total Core Length Station No. Core No.

8

Expedition Ship:

Leg No.

VISUAL CORE DESCRIPTION

Page 1 of 1

Ship AIL Cruise 22 Leg 1 Sta. 4 Core No 1167.

Total Length 4960 cm. Lat 36\*16.0\* Long. 16\*82.5% Depth 4915/cm.m. Core condition EXCELLENT Date Described MMMTL by Treamptor Physiographic location 56pmenf RND ASSOCIATED VITH MACHETIC AMPANETY Machinologic

Detailed Description

0-49
CALC DOZE
10 VR 5/3 brown
homogeneous, except for several very subtle, grayish montles 24-29 manites 24-20 masilty lutite, forms are scattered throughout; top 7 cm is considerably softer and only fills 70% of core liner two magnificently formed Mn nodules recovered at 2-3 cm and 34-37 cm

end of core

1×1

144

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Station No. Core No. AII Expedition 92 Ship: Leg No.

64 Total Core Length

1 PG

STIMATED ABUNDA	-	DIOGENOUS PACETIC	terial Biogenous Material	
Calcareous	-	-	2 sit	2 sit
& Sand	Sand	& Sand	& Sand	Silt & Sand
6114	-	1110	4117	Inorgan

ä

sebuods

-	calc ooze	tr	2		47	9	7
							l

Page 1 of 1

145

VISUAL CORE DESCRIPTION

Ship AIL Cruise 92 Leg 1 Sta 7 Core No. 2PC.
Total Length 519 cm. Lat. 30 18.6 M Long 16.6 875 V Depth 4949 car m.
Care condition Excendent Date Described 21 affait by 1 and Leg.
Physiographic location (EDMENT PAID NOSCINTED MITH MANASTIC PRIMINKY Ma.

| Calc Ooze | Calc

0-14

Oxide OOZE

10 YR 6/6 brownish yellow
14-37

S, horizontal
14-37

Oxide OOZE
CALC OOZE
10 YR 6/4 light yellowish brown
10 YR 6/4 light yel

Alocano 50

marbling and mottling
more compact, slick lutite with a few scattered forams
more compact, slick lutite with a few scattered forams
more compact, slick lutite with a few scattered forams
O'HE OOZE
IN THE OOZE
I

end of core

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F. S.

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146

SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

 Ship:
 AII
 Core No.
 2 PC

 Expedition
 92
 Station No.
 7

 Leg No.
 1
 Total Core Length
 579
 cm

		SI	Sponges											
		Siliceous	Rediolaria											
	10	Sil	2mots t0											
	Material		0£hers	2	9	2	3							
(%	S		Discoasters	:	Ħ	77	16							
ES (	Biogenous	Calcareous	Pteropods	ä										
ESTIMATED ABUNDANCES (%)	8	S	sfizzotonnsN	55	52	63	07							
D ABL			Forams	9	3	2								
IMATE			CJSY	32	35	31	59							
EST	Material		Volcanic shaerds											
			Zeolítes											
	Inorganic	11	Mi cronodul es	1	2	2	10							
	Ino		Detrital snisyp	2	-	tt	2							
			SEDIMENT	calc ooze	calc ooze	calc ooze	calc ooze							
			level	1	10	25	07							

147 VISUAL CORE DESCRIPTION

Page 1 of 1

Ship AII. Cruise 92. Leg 1 Sto. 7 Core No. 2 PCs. Total Length 19 cm. Lat. 30°18,6"1 Long 16.15" Depth 4969 review. Core condition Excellent Depth 20°18,6"1 Date Described 21149 11 by 38 and 20°19 Physiographic location 650 and 6618 are 18 prillips 11 print 11 pri Detailed Description

Pleistand Comment of the Comment of

0-19
CAL COZE
10 VR 6/3 pale brown
1 few small, Light gray mottles scattered throughout
moist, unconsolidated, slightly silty lutite with
scattered forams

end of core

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148

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 92 AII Expedition Leg No. Ship:

Station No.

2 PG

19 FSTIMATED ARINDANCES (E) Total Core Length

5

1		ě	RinsfolbsR				
	Biogenous Material	511	Diatoms				
	ateri		0thers	5	4		
2	ous P	Sn	Discoasters	4	Ħ	1.	
15	ogen	Calcareous	pteropods				
ESTIMATED ABUNDANCES (I)	80	S	21122010nnsN	52	55		
0 48			Forams	4			
MATE			Clay	35	35		
EST	erial	P	Volcanic				
	Inorganic Material	Silt & Sand	Sealfloes				
	rgani	Silt	Mi cronodul es	-	-		
	Ino		Detrital grains	2	2		
			SEDIMENT TYPE	calc ooze	calc ooze		
			LEVEL	3			
			-	-	2		1

Spondes

Sno

Page / of / 143 VISUAL CORE DESCRIPTION

Ship A.II. Cruise 92 Leg I. Sta. 9 Core No 3 PC.
Total Length 590 cm. Lat 30° 19.8 N Long 66.06.2 N Depth 4951 cass. A.
Core condition Excellent Date Described 24 May 76by A. Frirmer.
Physiographic location 529/ment Pond Assistant NITH MINENETIC Almand LY No.

Detailed Description 1 Lithologic REISTAGES +

+

41

25

RESTOREME SO

0-33
(ALC OOZE
10 YR 5/4 yellowish brown and 5/3 brown; variations of above colors appear as slightly disturbed, wide bands or occasionally streaks
no mottling streaks
slick, unconsolidated lutite, forams vary from very few to scattered
33-41 1 1 0 1 0 1 0 1

MANO OOZE

NANO OOZE

NANO OOZE

10 YR 7/3 very pale brown
numerous, small mottles of 10 YR 6/4 light yellowish
brown
firmer, somewhat plastic-like, slightly silty lutite
with scattered forams
5, disturbed
41-590
SLIGHIN CALC CIAY
10 YR 5/3 brown
no mottling, but pale, vertical striations
silty lutite with very few to scattered forams
flow-in from 44 cm

M07

/F/

4 500

ma

515

550

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

E 590 Total Core Length Station No. Core No. 92 AII Expedition Ship: Leg No.

		SI	Spondes										
		iceo	strafotbas										
	-	Sil	2mots to										
	Ateri	sicareous Siliceous	others	ä	5	-							
£	N Snor	SUS	Discoasters	Ħ									
ES (	oder	Calcareous	Pteropods		1								
ESTIMATED ABUNDANCES (%)	80	Calc	sffssofonnsM	87	89	tt							
D AB			Rorams	1	-								
IMATE			Clay	50	10	96							
EST	erial	Silt & Sand	Volcanic shaerds				*						
	C Mat	& San	Zeolites										
	gani	11	Mi cronodul es	-	7	5							
	Inor	0,	Setrited Saising	1		*5	*						
			SEDIMENT	calc ooze	nanno ooze	slightly calc clay							
				3	n	8 0	-	-	+	-	+ +	-	+-+
			LEVEL	-	39	43							

Page / of /

CALC DOZE WITH INTERBEDS OF SLIGHTLY CALC CLAY
10 YR 5/4 yellowish brown with several large bands
of 5/3 brown
scattered intermottling of above colors is present
throughout
slick lutite with scattered to common forams Detailed Description 0-1 VOID 1-98 444 + Lithologic L09

N. I

0

end of core

3

11

×

g core

M

8

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Total Core Length 98 3 PG Station No. Core No. 92 AII Expedition Leg No. Ship:

E

		Sr	Sponges					
		Siliceous	BinsforbsA					
	ه <u>.</u>	Stl	emoterd					
	ateri		219410	-	-	2		
<u>.</u>	Biogenous Material	S	Discoasters	Ħ		ä		
ES (	oden	Calcareous	Pteropods	Ħ				
ESTIMATED ABUNDANCES (%)	80	Calc	2[izzolonnsN	45	-	24		
D AB			Forams	3		5		
IMATE			Clay	50	96	89		
EST	erial	Silt & Sand	Volcanic shards				Ī	
	C Mat	& San	selifoes					
	rgani	Silt	Mi cronodul es	-	-	-		
	Ino		Detrital grains	T.	-	ä		
			SEDIMENT TYPE	calc ooze	slightly calc clay	calc ooze		
			LEVEL	2	67	16		

Ship AIL CORE DESCRIPTION

Ship AIL Cruise 92 Leg 1 Sta 17 Core No 4PC

Lindingic

Log

Core No 4PC

Lindingic

Lindingic

Core No 4PC

Lindingic

Core No 4PC

Core No 4PC

Lindingic

Core No 4PC

Cor

156 VISUAL CORE DESCRIPTION

Page 1 of 1

Ship AII. Cruise 72. Leg 1. Sto. 17. Core No. 4P6Total Length 195. cm. Lat 30'1174 Long 16'050' Depth 1954 meet.
Core condition. EXLECTED Date Described 15MM/IL by 18646.
Physiographic location. EMST RIDGE of SECONGAIT MAD MICRORITY MA.

Log

Detailed Description

Biogenous Material

Inorganic Material Silt & Sand

Total Core Length 1004

Station No.

35 AII

Expedition Ship:

Leg No.

4 PC

Core No.

ESTIMATED ABUNDANCES (%)

CALC 002E

10 YR 5/4 yellowish brown
extensive, light yellowish-brown and a bit of very
dark brown (Marite) mottling found throughout
firm, slightly silty lutite with a few forams

0-21
CALC 002E
CALC 002E
Slight, yellowish-brown mottling at unit basal contact abundant forams in firm, slightly silty lutite
6, mottled end of core 1 10 0 1 10 1 Perstaces -

Spondes

01hers

55 09 45 07 35

BinalotheA Smoterd

Discoasters

sfissofonnsN

Forams

Clay

Micronodules

SEDIMENT

TYPE

LEVEL

Detrital

Volcanic Seclites

3 7 2

7 7

CV -4

18

35

r.

calc ooze calc ooze/Mn micronodules

calc ooze calc ooze

100

200 205 calc ooze

300

30

59 53

4

18 99 7

calc ooze

475 200 009 100 800 850

calc ooze calc ooze calc ooze

calc ooze

400

3

43 1

150 - 145cm : ONG HOME Restance + 0 +

2

30 0.5 38

ä t, -

16 5

5

9

45

9

2

26

63

calc ooze calc clay

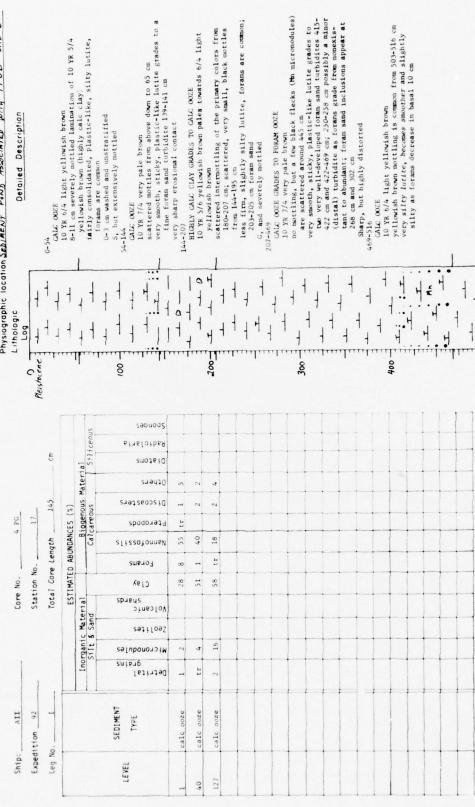
VISUAL CORE DESCRIPTION

Page / of 2

Ship A-II Cruise 92 Leg II Sta 19 Core No SPC.

Total Length 516 cm. Lot 22° 555" Long 13° 30¢ "W Depth 4448 ass."

Core condition Excerten I Date Described 26 May 18 by 4 Example Physiographic location 5eptine 17 Pend Associated With 1800 Site 6 Detailed Description



Core No. 5 . PC Page a of a

61

Leg I

2

Cruise

Ship A.E

159 VISUAL CORE DESCRIPTION

916 5 PC Tutal Core Length Station No. Core No. A II 92 Expedition Leg No. Ship:

NOTE: the tops of each core section (0-3 cm, 73-79 cm, 218-227 cm, and 375-386 cm) are partially washed and dislocated as pore water collected at the top before the cores were split

S con 0 + 0 +

end

end of core

Detailed Description

Lithologic Log

200 Plincene

Biogenous Material
Calcareous Siliceous ESTIMATED ABUNDANCES (%) preropods **elizzolonns**M Forams Clay Inorganic Material Silt & Sand Volcanic Sectioes Micronodules SEDIMENT TYPE

LEVEL

Spondes

2moj6i0

t,

BitafolbeA

Discoasters

25 20 20 20 99 30 23 tr 42 70 7 75 65 38 ţ ij ä tr ä b calc ooze highly calc clay calc ooze calc ooze calc ooze calc ooze calc clay \*01 115 160 270 370 35

85 10 04 \*mottled lamination 7 foram ooze calc ooze

4

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\*\*577

514

\*\*Several black flocks from general area wete preferen-timily sampled and added to siide. They are Me, but are not common in unit.

VISUAL CORE DESCRIPTION Pag

5. 26	H. GRMER	7E 6
19 Core No.	43° 30.6 W Depth	WITH IPOD SI
Leg II Sto.	Post Nong	POND ASSOCIATED WITH
Cruise 92	Cone condition Excellent Date Described 26 MM Though H. FARMER	Physiographic location Septiment Pand Associated with 1POD SITE 6 Lithologic
Ship A-II	Core condition	Physiographic Ic

Detailed Description		U-5 VOID 5-122 CALC COZE WITH LAWINATIONS OF HIGHLY CALC CLAY LOT NE 644 Light yellowish brown LOT NE 644 Light yellowish brown appear from	34-39 cm, 45-46 cm, and 93-97 cm and are extensively mottled with the primary color firm, very silty lutite; forams are common 5 s	CALC GOZE  ONE ONZE  I OY RE 6/3 pale brown mottles are centered in core from 127-131 utile from, very sitty lutite irregular void stretches from 136-141 cm	end of core			
Lithologic	Meightene - VOId	1011	1011	leighance mad of con-		<b>.</b>	 	1

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

	expedicion .	26			Sta	Station No.	. 0	1	61	177		ŧ		
					ES	ESTIMATED ABUNDANCES	ED AB	UNDAN		(F				
		Inc	Inorganic Silt & S	& Sar	Material			Cel	cared	S	Material	Sil	Siliceous	
LEVEL	SEDIMENT	Detrital safeng	Micronodules	29111092	Volcanic shards	Clay	2m6Y07	sfissolonneN	pteropods	Discoasters	suaut0	2mo16 fQ	Rediolaria	
	calc ooze		-			55	6	50		2	-			
	highly calc clay		2			72	-	25		7	Ħ			
	calc ooze		Ħ			20	3	95		7	-			
136	calc ooze		ä			20	7	42	Ħ	Ħ	-			
	-	-		-	-					1	-	-		

200-

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300

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1004

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Core No 6- PC Poge & of &

Leg II Sto 2/

Detailed Description

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

35 AIL

Expedition Ship:

Leg No.

SEDIMENT

TYPE

LEVEL

calc ooze

calc ooze calc ooze

Page / of /

## VISUAL CORE DESCRIPTION

Ship  $\widehat{H}$ - $\widehat{E}$  Cruise  $\frac{g_{Z}}{2}$  Leg  $\widehat{I}$  Sta  $\frac{2J}{2}$  Core No  $\frac{G - R_{G}}{2}$  Total Length  $\frac{J}{J}$ - $\frac{J}{J}$  cm Lat  $\frac{2J}{2}$   $\frac{g_{Z}}{g_{Z}}$   $\frac{J}{M}$  Long  $\frac{4J^{2}J_{Z}}{2J_{Z}}$   $\frac{J}{M}$  Depth  $\frac{44J^{2}}{2J_{Z}}$  casem Core condition  $\frac{E\lambda ELLENT}{E}$  Date Described  $\frac{J}{M}$   $\frac{J}{M}$  by  $\frac{J}{M}$  FARMER Physiographic location  $\frac{J}{S}$   $\frac{J}{D}$   $\frac{J}{M}$   $\frac{J}{M}$ 

GALC GOZE

GALC GOZE

GOZE

10 78 6/4 light yellowish brown, grades towards 5/6
yellowish brown at 13-9.9 cm and 43-44 cm; a few pale burrows appear from 12-23 cm silty lutite, forams are very common Detailed Description S 87-109 CAIC 002E '' YR 6/4 10 + 0 1 1 Lithologic L09 E Total Core Length 526 6 PC 21 Station No. Core No.

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	Siliceous	sinsforbsA								
(0)		smotsid								e He
Materi		0.thers	Ħ	1	2	-	-1	-	Ħ	lecks in t
	1 1	Discoasters	Ħ	Ħ	3	2	2	11	Ħ	specially selected black flecks which are not as abindant in t
	Calcareous	Pteropods	Ħ					ij		d bl
Bioge	Cal	sfissofonnsN	20	42	09	56	42	10	75	electe not as
U ABL		2m6Y07	5	-	ä	1	25	80	-	are pare
esi mareu		Clay	45	55	35	07	30	7	23	Pecial Which
Material	p	Volcanic sbaseds								
2	Sand	səliloəZ								includes several (th micronodules) normal unit
gani	Silt &	Micronodules	Ħ	-1	Ħ	b	Ħ	2	-	includes (An more normal u
Inor	S	Detrital grains		Į,		1				* include (Mn mic) normal

foram ooze nanno ooze

\*007

524

calc ooze

215 315

115 15 1

calc ooze

10 TR 6/4 light yellowish brown 10 TR 6/4 light yellowish brown 100B; narrow, pale buttons agard from 54-100 cm silty luttie, forcass are very common NOTE: After comparison with the picton core and in consideration of the sharp contact and repetitious lithologies above, maltiple penetration, i.e., pilot core rebound, is suspected

end of core

168 VISUAL CORE DESCRIPTION

Page 1 of 1

Ship AII. Cruise 92 Leg 2 Sta 25 Core No 16C.
Total Length 215 cm. Lat 25 04 1514 Long 420 21514 Nobelth 38621cmm.
Care condition EXCENENT Date Described 21MM 16 by 1514CM.
Physiographic location 3500 meter ridge, Numbers 45 4441 60 17000156

Lithologic

Detailed Description

0-81
CALC OOZE
CALC OOZE
CALC OOZE
Very Slight, very faint pale brown mottling and burrowing quite stiff, plastic, silty lutite with abundant forans S. herizontal
81-275

	Reistocone				Siliceous
		CB		aterial	Sili
PG	27	Total Core Length 109	ANCES (%)	Biogenous Material	Calcareous
Core No. 6 PG	Station No. 21	Core Lengt	ESTIMATED ABUNDANCES (%)		ů,
200	Statio	Total	ESTIN	Material	Sand
1				organic	Silt & Sand

Silt es	& Sand			ESTIMATED ABUNDANCES (A.	4) 63	3	1	5	
su				Calo	Calcareous	S	2	Siliceous	Seous
Detrital grai	setifoes SinesfoV shaeds	Clay	Forams	2[i220]onn6N	pteropods	Discoasters	Others	smode i O	Sponges
calc ooze tr		50	7	42	t,	1	_		

LEVEL

tr tr tr

07 3

tr 22

calc ooze calc ooze

very slight, very faint pale brown mottling and burrowin quite stiff, plastic, slity lutire with abundant forems S, hortzontal.  81-27 00E  10 YR 8/3 very pale brown common, faint hues of very pale brown and yellow mot- tling and burrowing throughout stiff, compact, foram-rich, plastic-like lutite void 125-130 cm end of core		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
44	Weene Bo	atanhaanahaalaahaal

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 2

VISUAL CORE DESCRIPTION

LOT 22: 50 13'N LONG 43: 5038'W Depth Halman. LENT Date Described SACLIS by Pinda CENTER OF MAIN SEQUENT MND: I'm SITE 6.	Detailed Description			CALC OOZE 10 YR 6/4 light yellowish brown	homogeneous throughout firm lutite with a few scattered forams	S (end of section) S defined in handling - slumped from liner and replaced - not oriented	YR 7/3, v	tirm, tacky luttle with very lew lorans except in two firegular laninations, 48-50 cm and 96-97 cm where very sub-indust tests are found	S, irregular	CALC OOZE 10 YR 8/2, white grades to 7/4 very pale brown	very fine foram sand grades slowly and evenly to coarse foram sand	graded bedding S. trregular	204 204 Calo Over	10 YR 6/4, light yellowish brown	common yellowish brown mottling in the zone 162-174 cm.	firm, slightly silty lutite with abundant forams grading to very few	black Mn-rich flecks are common 160-170 cm S, horizontal	-230 CALC OOZE WITH MN MICRO NODULES	10 YR 5/4 yellowish brown grades to 6/4 light yellowish brown	common inter-mottling of the colors above in the zone	206-213 cm firm, smooth lutite with a few scattered forams	three well-defined very pale brown foram-rich lamina-	black flecks (Mn?) are common at upper and lower	contacts of the laminae  S, slightly concave upward		
Total Length <u>636</u> cm. L. Core condition <i>Exceusing</i> Physiographic location <i>CENTE</i>	Lithologic	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			30-4	14 14 1		911	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1111	104	139-	144	† † † † † † † † † † † † † † † † † † †	1 6 1 6 1 6 1 6 1	1	+ + + + + + + + + + + + + + + + + + + +			11011	111111111111111111111111111111111111111		1.	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
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		Per he			ceous	PL	Sponges												I						-	
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	1 00	25 Rex been	275 cm	UNDANCES (%)	Biogenous Material Calcareous Siliceous	sta:	Discoast Others Diatoms	tr tr 3	~																	
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	No. 1 GC	25 Rex hos	275 cm	IMATED ABUNDANCES (%)	S Materia	sfiz: zł	Nannofos Pteropod Others Smotsign Sadiolas	54 tr tr 3	50 tr 1	35 40	30 40	28 45														
	1.00	Plex hor	ED -	ESTIMATED ABUNDANCES (%)	Biogenous Materia Calcareous	si si si si si	menoa Nannoko Peeropoo Seessi	12 25 54 tr tr 3	20 50 tr 1	7 35 40	3 30 40	1 28 45														
	No. 1 GC	25 Rex hos	275 cm	ESTIMATED ABUNDANCES (%)	Biogenous Materia Calcareous	sbrai	Reroped  Mannofos  Mannofos  Mannofos  Mannofos  Mannofos  Macopos	12 25 54 tr tr 3	20 50 tr 1	7 35 40	3 30 40	1 28 45														
	No. 1 GC	25 Rex hos	275 cm	ESTIMATED ABUNDANCES (%)	Biogenous Materia Calcareous	sbrief	Volcanic Volcanic Recol Menor Meropod Precopod Precopod Sacoast Meropod Precopod Menor Meropod	12 25 54 tr tr 3	20 50 tr 1	7 35 40	3 30 40	1 28 45														
	No. 1 GC	25 Rex hos	275 cm	ESTIMATED ABUNDANCES (%)	S Materia	safut safut safut si si si si	Micronod Zeolites Yolcanic Stay Nannofos Pteropod Others Distoms	4 12 25 54 tr tr 3	1 25 20 50 tr 1	13 7 35 40	1 24 3 30 40	1 28 45														
	No. 1 GC	25 Rex hos	275 cm	ESTIMATED ABUNDANCES (%)	Biogenous Materia Calcareous	safut safut safut si si si si	Micronod Zeolites Volcanic Tena Ronnofos Pteropod Pteropod Discoast Others	4 12 25 54 tr tr 3	25 20 50 tr 1	13 7 35 40	24 3 30 40	1 28 45														
	No. 1 GC	25 Rex hos	275 cm	ESTIMATED ABUNDANCES (%)	Biogenous Materia Calcareous	safut safut safut si si si si	Detrital  Micronod  Zeolites  Volcanic  Foran  Ronnofos  Peropod  Preropod	4 12 25 54 tr tr 3	1 1 25 20 50 tr 1	13 7 35 40	1 24 3 30 40	1 28 45														

Poge 2 of Z Core No 7PC 27 Leg II Sta 171 VISUAL CORE DESCRIPTION 76 Cruise AIL Ship

Detailed Description Lithologic Log 200

230-320
(ALC 002E
10 YR 6/4 light yellowish brown mottling in the zones 230234 and 29-120 cm; black fleeks and tiny Mn-rich
pockets are also common in the above
an irregular lens (yellowish brown) of unconsolidated
lutice contacts stiff plastic-like foram-rich lutite
at 233 cm; the more compact material continues
throughout the unit with decreasing foram content END OF CORE : 636cm

Procene

000

320-494
GAIC ORE
10 YR 5/4 yellowish brown grades to 6/4 light yellowish brown grades to 6/4 light yellowish brown grades to 6/4 light yellowish brown faint in termstrional zone firm slightly slity lutire with scattered forams 5, horizontal 6/45 of 6/4 fight yellowish brown grades to 6/4 light yellowish brown grades to 6/4 light yellowish brown grades to 6/4 light yellowish brown faint in remnsitional zone firm, slightly slity lutire with scattered forams a bit of disturbance appears evident 615-656 cm end of core

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

EO Total Core Length 636 ESTIMATED ABUNDANCES (%) Core No. 7 PC Station No. 22 92 AII Expedition Ship: Leg No.

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	1	STITCEOUS	RinsfolbsA														
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Material	1270		0thers	3	2	4	1	Ħ	-	6	2	2	2	2			
2	0	ns	Discossiers	Ħ	4	-	9	7	2	2	Ħ		4	2			
Ricconduct	250	Calcareous	pteropods														
a	1	Sal	2 f t 2 2 0 1 on n 6 M	55	65	30	65	09	50	65	50	84	65	89			
	-		Forams	20	7	20	-	-	18	-	10	7	2	m			
	-		CJ9X	22	26	15	27	12	29	25	38	07	27	22			
Matorial	0	p	Volcanic shaeds														
W.	200	g Sand	Zeolites														
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			(cm)	-	06	110	210	212	227	300	700	200	009	635			

Page 1 of 1

175

VISUAL CORE DESCRIPTION

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

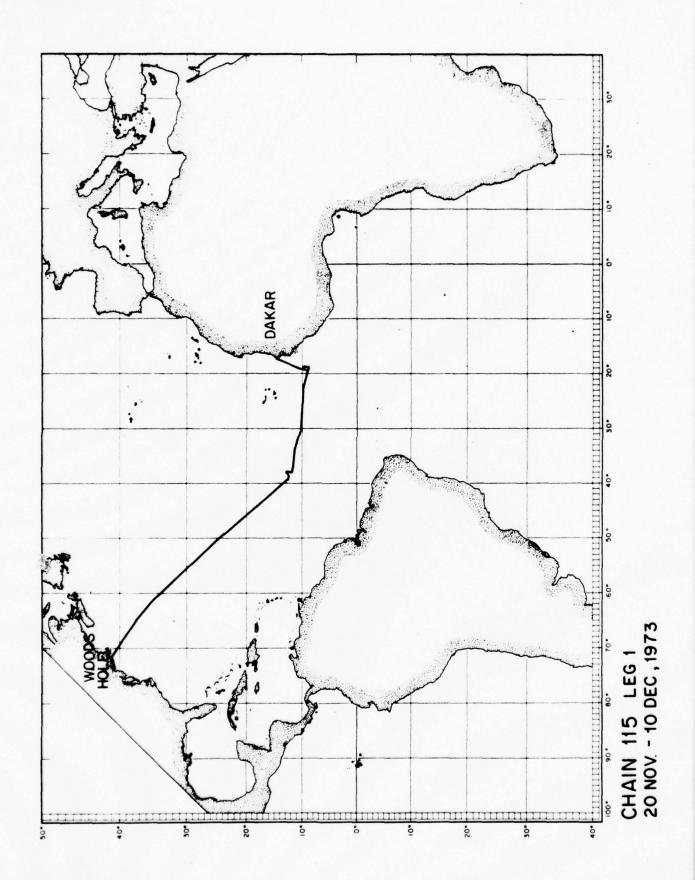
Ship AIL Cruise 92 Leg IL Sta 21 Core No 1Pc-Total Length 109 cm Lat 22:58.75.14 Long 43:3056\*4 Depth 4431 mount Core condition Excercent Date Described 5786.75 by 10 cm. Physiographic location CENTER DF MAIN SEOIMENT PAND. TPUD STEE

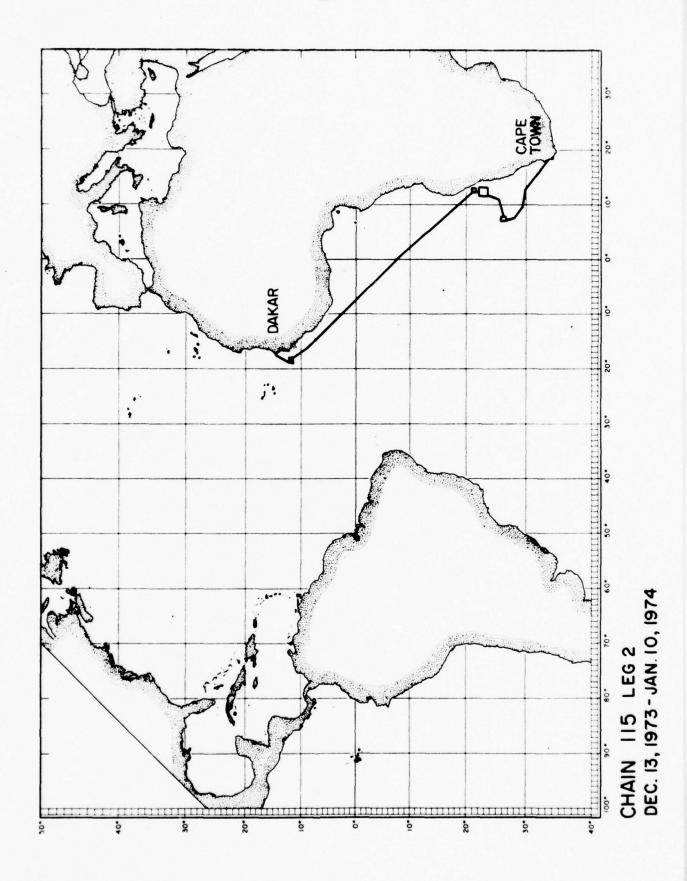
Lithologic

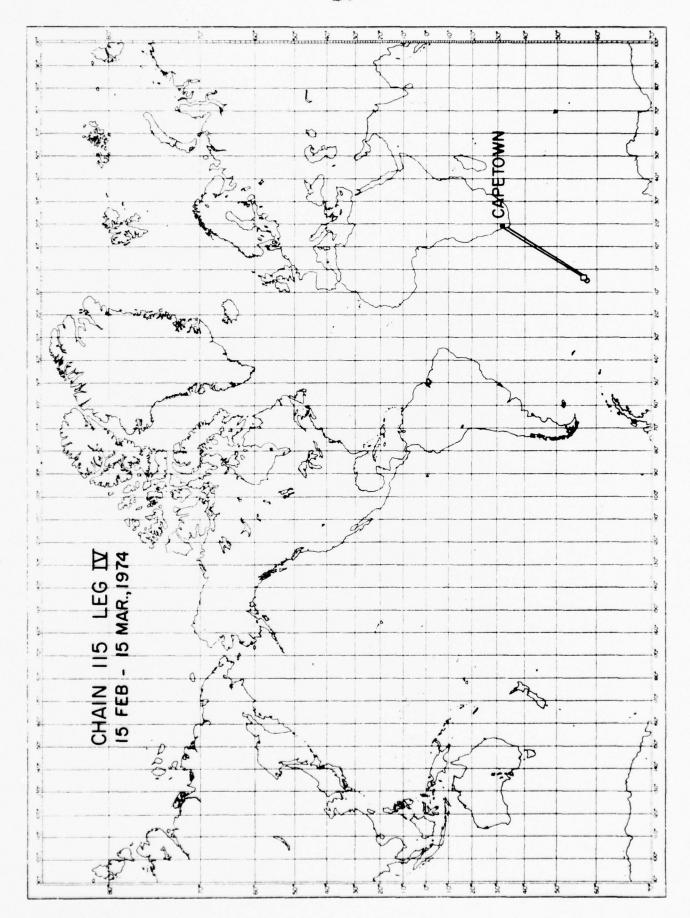
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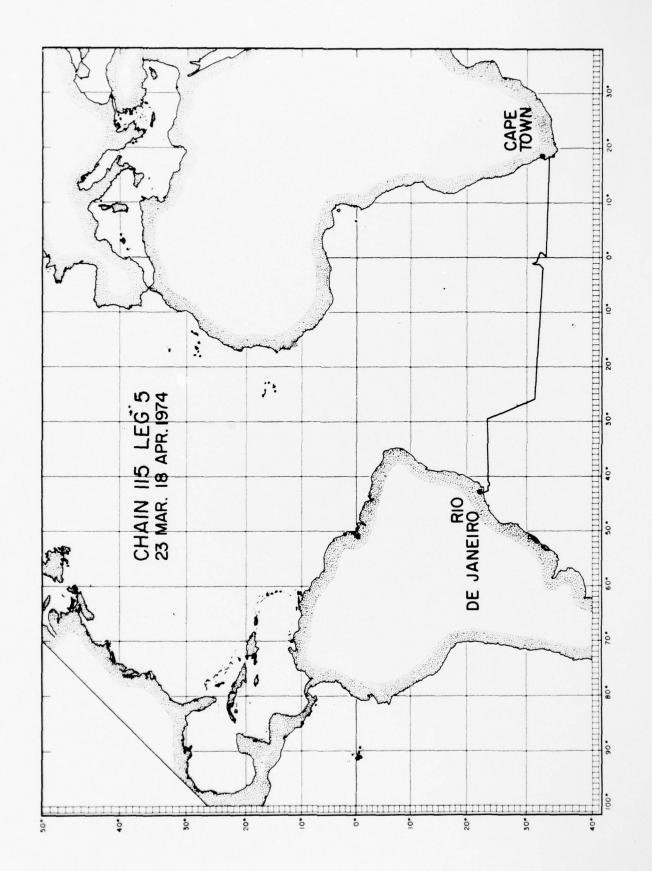
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ESTIMATED ABUNDANCES (%)			2m6107	15	3	5	
A.			Clay	36	52	88	
EST	erial	Silt & Sand	Volcanic				
	C Mat	& San	Zeoli tes				
	gani	ilt	Micronodules	2	2		
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			SEDIMENT TYPE	calc ooze	calc ooze	calc 002e	
			LEVEL	1	91	501	

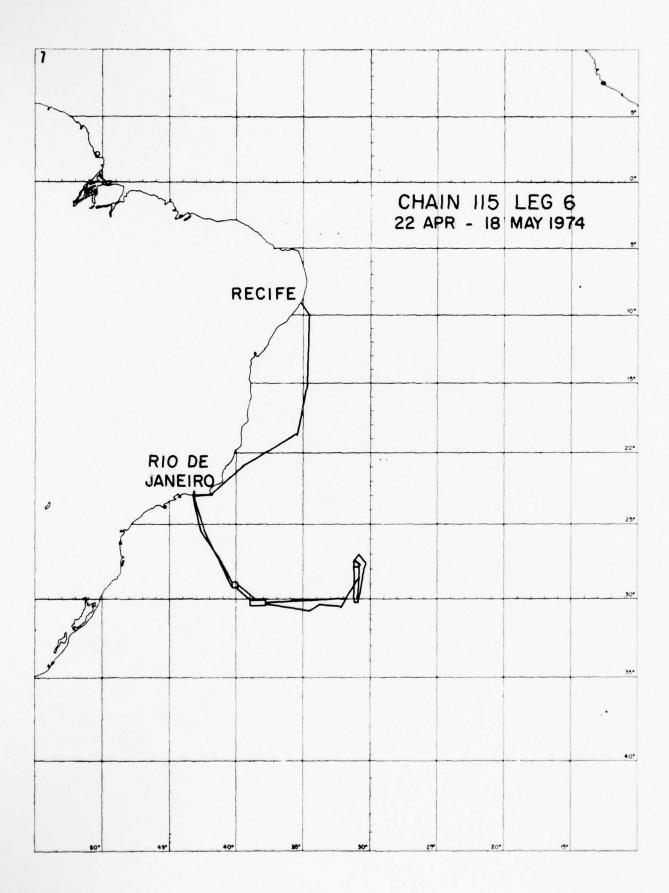
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Lithologic		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 4 4	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	1 6 1 1	END DE CORE : 106 UM.
Detailed Description	0.88	CALC 002E 10 YR 6/4 Light yellowish brown common yellowish brown mottling and burrowing in the zone 40-60 cm	moist, slightly silty lutte with scattered forams 5, inclined 10° 88-92 CALC CORE 10 VP 6/2, mollocity by the contract of the core in the core calculation by the core calculation of the core calculation by the calculation by the core calculation by the core calculation by the core calculation	homogeneous throughout moist, silty lutite with a few forams 5, irregular 92-109	10 YR 6/4 light yellowish brown common yellowish brown mottling 92-96 cm moist slick lutite, no forams a concave upward yellowish brown lens appears (% 1 cm)	at oction of core end of core

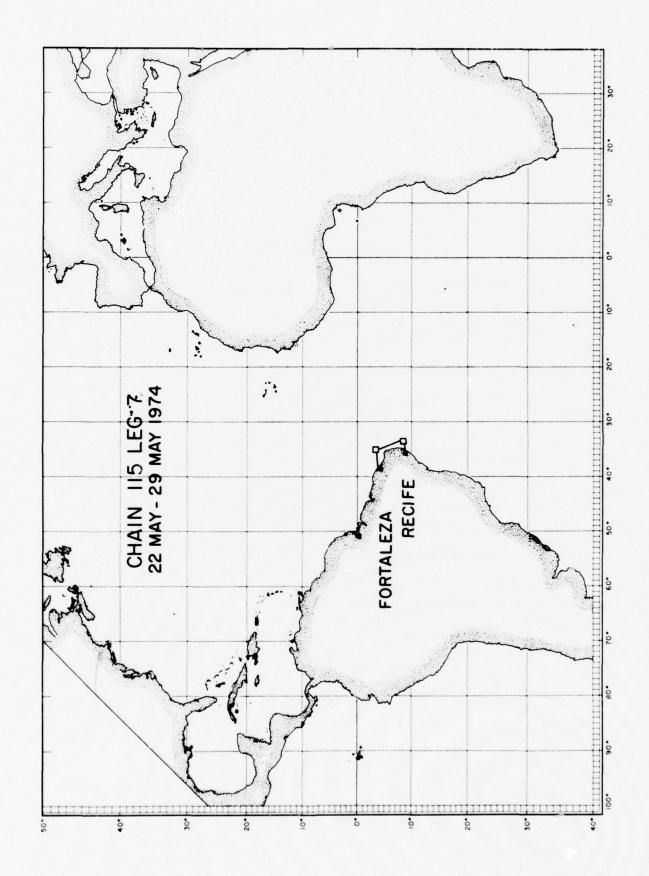


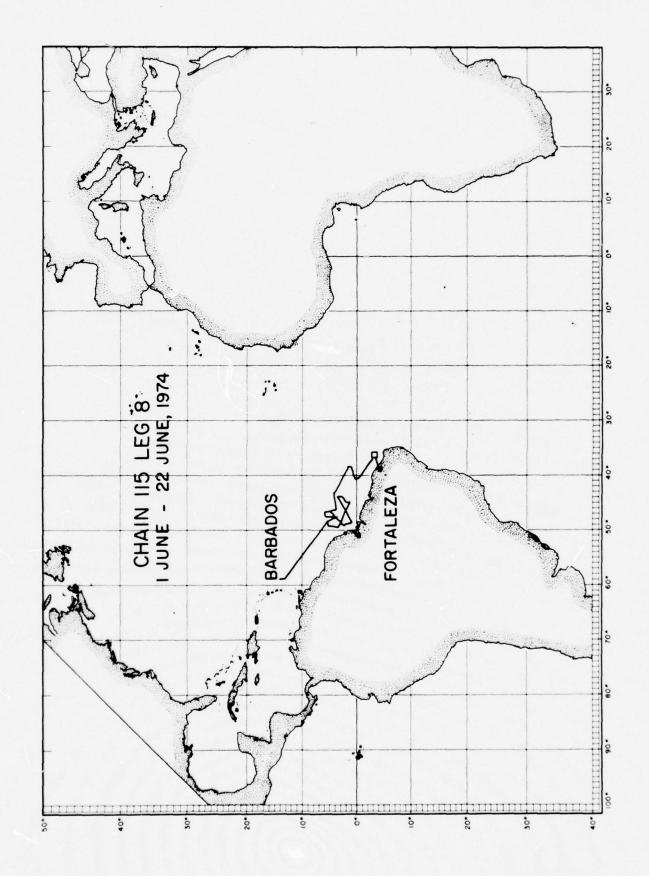












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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 2

MYTILUS SEAMOUNT NEW ENGLAND SEAMOUNT CHAIN	Detailed Description	8-0	CALC CONZE 109R 6/3 pale brown	moist forem sand with small percentage of lutite lending color	G textural	SL CALC CLAY 10YR 5/3 brown common pale brown mottles and laminations slick luttle with scattered forems [4-29 SL CALC CLAY		scattered small (2mm) and one large (17-19) lithified clay lumps	S textural 29-38	SL CALC CLAY - 10YR 5/2 grayish brown	a few very fine 10YR 2/1 black microlaminations scattered very slick moist lutite S textural	38-46 31 CAIN CIAV	10% S/2 grayish brown silty abund forems	large 2.5cm X 2 cm ice rafted erratic (weathered pebble)	S texture!	SL CALC CIAY	occasional laminations of black fleck throughout	48-50 cm a watery pocket of sand and small pebbies	100-125 SL CALC CLAY	10VR 6/2 11ght brownish gray sl silty lutite with scattered forans evenly grading to	foram sand 125 cm small pebbles .5 cm diameter scattered throughout	S 125-127	SL CALC-SILIC CLAY 10YR 6/4 Light yellowish brown	slick lutite with scattered forams
hic locatio	Lithologic	1 T T T T	401	111				1						and of well	•									
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SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

Biogenous Material
Calcareous Total Core Length 138 ESTIMATED ABUNDANCES (%) Core No. 1 PG Station No. 1 25 sffssofonnsM 7 07 t --Forams 87 98 25 88 8 Clay Volcanic Shards Inorganic Material Silt & Sand zeolites ₩ Micronodules ~ Detrital grains 10 6 al calc clay al calc-affic clay al calc clay sl celc clay Expedition 115 SEDIMENT calc ooze TYPE Ship: Chein Leg No. 30 cm 10 cm ₩ 06 I cm 137 cm LEYEL Detailed Description

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Sponges

Others

Rinslotbes

Discossters

pteropods

127-138
SL CALC-SILIC CLAY
1078-52 graytab brown
occasional incomplete (do not spam entire liner) black
macroluminations
scattered forams in silty lutite
end of core

E

191

Page 2 of 2 Core No. 1P&

Leg Sto.

Ship CHAIN Cruise 115

Lithologic Log

Page 2 of 3

Core No. 2PL 4 Leg - Sta -2 Ship CHAIN Cruise

Detailed Description

GALC GONZE.

107R 7.1 Light gray grades to 7.5YR 6/2 pinkish gray
form sand with gradually increasing detrital small weathered
pebble component one large 1.5 cm pebble (ice rafted) 353-355 cm, slightly
washed and disturbed 347-350 cm 107R 7/1 11ght gray and 5/2 grayish brown extensive intermarbiling and mixing of the two colors above extensive intermarbiling and mixing of the two colors above assist silty lutite interbedded irregularly with forum sand 5 Inclined 10° CALC 002E
(MTS 5/3 brown
faitly compact very silty luit te with scattered formus
S. terrural CALC GOZE 107R 5/2 grayish brown moist very silty lutite with extremely abund. forams moist compact silty lutite with extremely abund. small void 417-419 om does not span entire liner S alightly inclined CALC OOZE 10YR 5/3 brown CALC OOZE CALC OOZE 400-417 444-480 425-444 是 中国 1111 1 and the 1 1

forms

10TRS/3 brown grades to 5/2 grayish brown moist very silty lutite with common forance

HLY CALC CLAY GRADES TO UNPOSS CLAY varying hues of 5Y 4/2 olive gray and 2.5Y 4/2 dark brownish 79-084

firm slicy lutite with acattered forms, lithified dark olive lamination (motifed ) 568-570 cm, acattered lithified olive lumps 530-570 cm salty lamination of black flecks (comcave down) at 60% cm namerous scattered ice rafted glackal erratics, red sandment of 500 cm, large weathered pebble at 485 cm many other small ones throughout

2.5% 4/2 dark brownish gray one large, very dark grayish brown mottle 672-674 cm almost dry.compact, very silry lutite with abund. forems 5 textural UNFOSS CLAY/DETRITUS 672-679

SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

Total Core Length 785 Core No. 2 PC Station No. 2 Expedition 115 Ship: Chain Leg No. \_

5

Silt & Sand		Micronodules Zeolites Volcanic	2	2	3	2	2	1	1	-	3	2	7				-
0																	
-	_	Shards Clay	53	74	98	74	8	63	09	59	11	88	82			-	-
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Spondes

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679-785
SLGMILY CALC CLAY
SLGMILY CALC CLAY
STATE that brownish gray
faint shadowy dark gray and reddish brown irregular mottle
moder alightly salty lutite with a few scattered formas
end of core Page 3 of 3 Ship CHAIN Cruise 115 Leg 1 Sto. 2 Core No. 2 PC Detailed Description 194 VISUAL CORE DESCRIPTION

Lithologic Log

Page 1 of 1

Ship CHAIN Cruise 117 Leg 1 Sta 2 Core No 2PC
Total Length 88 cm. Lat 39 204N Long 17010'W Depth 2415 miles.

Core condition EXLECTENT Date Described 1 NRL15 by 10 MILES
Physiographic location MYTILVS SEMINANT NEW ENGAND SEMINANT CHAIN

CAE C 002E
107R 5/2 grayish brown
compact foram sand
2.5 mm to 5 mm diameter black pebbles scattered throughout
3 Detailed Description 9-0 Lithologic

CALC 002E
10YR 6/4 light yellowish brown
modef form and and
scattered pebbles up to 5 mm diameter, also one large 3 cm
x 2 cm lithified clay lump
x mottled
mottled

11

6

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पंत्र ष्ट

SL CALC CLAY
7.5YR 5/4 brown
common light yellowish brown mottling
acattered forams in silty lutite, abund. forams in mottles at
wery 6

111

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end of cour.

7 REISTRONE =

17-23
SI CALC CLAY
SI CALC CLAY
SI CALC CLAY
SITTER SILVY LUTTE With scattered forams, black flecks and small pebbles
S mottled
23-53

23-53
2.57 5/2 grayiah brown
2.57 5/2 grayiah brown
2.57 5/2 grayiah brown
common.large.brown mottling 23-33 cm,very faint brown common mottling 30-66 cm
silty lutite with scattered black flecks throughout
53-88
51. CALC GIAY
51. GALC GIAY
51. GALC GIAY
52. Initiation large lutite
1. Littified clay fragments, 5 mm diameter at 54 cm, small
1. Littified clay fragments, 5 mm diameter at 54 cm, small
1. Littified clay fragments, 5 mm diameter at 54 cm, small
1. Littified clay fragments, 5 mm diameter at 54 cm, small
1. Littified clay fragments, 5 mm diameter at 54 cm, small

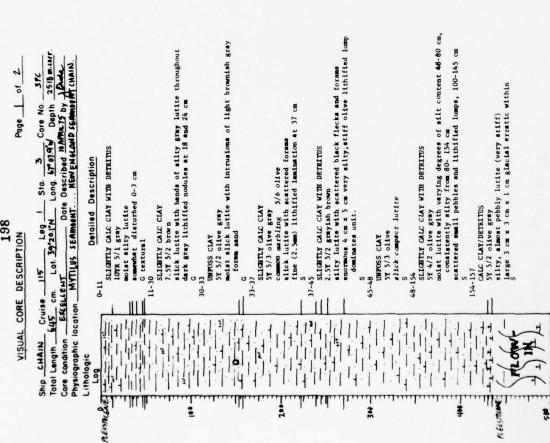
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDITENT CORES

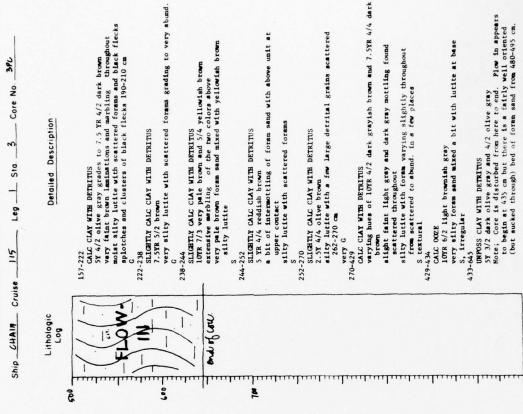
Total Core Length 88 2 PG Station No. 2 Core No. Expedition 115 Chain Leg No. Ship:

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		Ino	rgani	Inorganic Material	erial			8	ogen	ous P	Biggenous Material	9		
			Silt	Silt & Sand	P			Cal	Calcareous	ns		Siliceous	ceon	5
LEVEL	SEDIMENT	Setrital Setrital	Micronodules	Zeolites	Volcanic shards	Clay	2ms 10 l	2   1220 tonne N	Pteropods	Discossiers	others	2mo16t0	sinstotbaA	sabuods
1 cm	calc oose	3	2			07	07	10			2	Ħ		ij
16 GB	sl celc clay	80	2			85	-	8			-	Ħ		
50 cm	calc clay	01	3			79	-	8			2			5
87 cm	sl calc clay	5	-			9.6	T .	7			7			
													Ī	

Poge 2 of 2





## SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 1

201

Core No. 3 PC Station No. 3	ACES (%	al Biggenous Material	Calcareous	C1ay Forams Namofoss11s Pteropods	77 tr 3	06	79 4	76 5	75 tr 2	74 1 7	74 1 5	76 tr	73 tr tr	
Ę	E	erial	S111ceous	Diatoms Diatoms Radiolaria Sponges	1	tt	tr tr	1	2	1	1	Ţ,		
aphic locat			1		7111			01			1		<i>š</i> l.	antumhaantaantaantaa
Σ 7	CALC 002E  OMB 62 grayish brown compact foram same with small black detritud (Mm) fleeks	9 8-7		forams and grades to modest slick lutife with very abund. forams large 3 cm x 1 cm ice rafted glacial erretic 4-7 cm 6 sho 8-10 SLIGHTLY CALC CLAY WITH DETRITUS 10078 5/2 graysh brown	moist slick lutite with very few forams and scattered black flecks	S, H 10-27	SLICHTLY CALC CLAY WITH DETRITUS 10YR 5/1 gray	moist alick lutite with a thin (5 mm) band of extremely abund forams (13 cm) and lithified laminations at 23 cm ( 25 cm	S textural 27-127	CALC CLAY WITH DETRITUS LOYR 5/1 gray	silty lutife with abund, black flecks except for band 100-112 cm of very moist slick lutite with no flecks		Nump at 115 cm, large pebble (2 cm diameter) at 117 cm.	127-131 2.5TM4/ dark gray 2.5TM4/ dark gray one Large brown 7.5X 5/2 mottle one Large brown 7.5X 5/2 mottle slick lutie with dominant very stiff lithified mottle at upper unit contact 3 cm dismeter quartz pebble (ice rafted) 128-131 cm end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 2

203 VISUAL CORE DESCRIPTION

Sing Central Cruse 12 Leg 1 Sto. Core No. 2 Sto. Core No. 2 Sto. Core No. 2 Sto. Core Leg 1 Sto. Core Leg 1 Sto. Core Leg 1 Sto. Core Condition Excellent Dogs 17:20 No. 2 Sto. Core condition Excellent Dogs 17:20 No. 2 Sto. Core Core Core Core Core Core Core Core	0-3 UNPOSS CLAY WITH DEFRITUS	57 4/3 olive compact silty lutite with black flecks thinly laminated	S S S S S S S S S S S S S S S S S S S	UNFOSS CLAY WITH DETRITUS  10RR 4/2 dark grayab brown slity luttle with small litthified olive and brown slity luttle with small litthified olive and brown nodules scattered throughout S.H 8-97 SLIGHTLY CALC CLAY WITH DETRITUS VARYARE has of 5Y 4/2 olive gray and 10YR 4/2 dark grayish	brown moist salty lutite with nebbles (1 cm x . Scm) and lithified	nodules scattered throughout at 92 cm a \$2.2/1 black very silty lithified inclusion (Mn)	1 cm dameter S	97-109 SLIGHTLY CALC CLAY	107R 3/3 dark brown smooth luttle with scattered forams and 1-2 mm olive gray lithfied inclusions	109-101	SY 5/2 of twe graph one elick oray hand 134-139 cm	large lithifications; olive gray at 109 cm and brown at 110	139-144 SLIGHTLY CALC CLAY WITH DETRITUS	2.37 6/2 1ight brownish gray light gray forem sand lamination 143-144 cm	foram sand with small percentage of lutite at base and numerous black flecks	S 144-150	SLIGHLY CALC CLAY WITH DETRITUS 7 SYR 5/4 brown	common foram rich light gray mottling throughout firm compact lutite with abund. forams	8 8 150-194	THE CALC CLAY WITH DET	faint pinksh gray marbling throughout compact lutite with abund. forams and thin laminations and streaks of black flecks
Ship Carain 213 Total Length 213 Core condition Fhysiographic locati	Resment Log		111		111		111	111111111111111111111111111111111111111	11 11	131	111	10 10	111		111	111111111111111111111111111111111111111	111111111111111111111111111111111111111	Zio	pressure -	25.25.25	,,,,,,,
	T CM		Biggenous Material Siliceous	Discoasters Others Distoms Radiolaria	\$	Ţ	3	ž.													
Core No. 3 PG	Total Core Length 131	TIMATED ABUNDA	3	shards  Vaf3  Forams  Since of the state of	27 40 20	78 tr 1	73 1 5	78 tr 2													
3 %			Silt & Sand	Detrital grains Micronodules Zeolites	7 1	20 1	16 2	18 1													
Ship: Chain Expedition 115	-			SEDIMENT TYPE	l cm calc ooze	20 cm with det	100 cm with det	sl calc clay													

205

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 2 of 2

4 Core No. 4PC

\_ Leg \_ Sta. \_

Ship CHAIN Cruise 115

Lithologic Log

VISUAL CORE DESCRIPTION

Total Core Length 213

Core No.

Ship: Chain

Seattered small Sume-7.5mm ice rafted pebbles

Sume-7.5mm ice rafted pebbles

194-199

HLY CALC CLAY WITH DETRITUS

2.58 572,8 gray, has brown
moist soup; luttle with very abund, forams
numerous sharply fractured fragments of Mn throughout

Summerous sharply fractured fragments of Mn throughout

SEDIMENT  SEDIME			J.	inem		EST	ESTIMATED ABUNDANCES (%)	D ABL	INDAN	ES (	( ) d	100	7		
18 0 60 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				Silt		P			3	ane	es on		Sil	ceo	SI
16 2 tr 82 tr 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		SEDIMENT	Detrital Snisrp	Micronodules	səliloəz	Volcanic shards	Clay	Rorams	sfizzotonnsM	Pteropods	Discoasters	others	2mo16i0	StasfotbsЯ	Spondes
20 8 tr 70 tr 1 1 1 20 6 tr 72 tr 1 1 1 18 8 49 3 20 2 2 100 2	-	with det	16	2	tr		82		ä			ä			
40 50 10 tr 20 6 tr 72 tr 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		si calc clay with det	20	80	#		70	Ħ	-			-			
18 8 49 3 20 100 100 100 100 100 100 100 100 100		Mn/det	07	50			10					5	5		
100 49 3 20		si caic clay	20	9	5		72	2	-			-			
		hiy caic clay with det	18	80			67	3	20			2			
		Mn pavement		100											
															1
						ı			T						

Ship CHAIN Cruise 115 Leg 1 Sta 4 Core No 476

Total Length 137 cm. Lat. 39°20.1'N Long 61°06.1'W Depth 2516m.terr.

Core condition Excertent Date Described 1.NTX.15 by Frank.

Physiographic location MYTILVE SEMPRONIT... NEW RNELAND SEAMONT CHAIN.

Detailed Description Lithologic

CALC 002E
107R 6/2 light brownish gray
moist foram and with 1-2 am sized pebble grains common
throughout 9

CALC COZE WITH DETRITUS
10TR 5/4 yellowish brown
forms and grades to sitck luttle with abund. forms, 2.5-5 mm
diameter pebbles scattered throughout
for rafted pebble, 1.5 cm x l cm between 5 and 7 cm
5 tenural. 8-4

UNPOSS CLAY WITH DETRITUS
IOVR 5/4 yellowish brown
5 um lamination of partially lithified lutite, 7.5% 5/4 brown
at 10 cm also fine marbling and laminae of same color
14-16 cm modet slick lutite 16-21 11 11 11

, ...l..

0

SY 4/4 olive silty lutite with abund. black flecks s textural UNPOSS CLAY
SY 5/2 olive gray
very fine brown lamination at 17 cm
moist slick lutite
S rextural
21-26 

7

REWTOCENE

10

5Y 5/2 olive gray watery band of coarse detrital grains and black flecks, also a somewhat graded bed of 1-2 mm sized grains 28-28,5 cm 5 textural UNPOSS CLAY GRADES TO CALC CLAY UNFOSS CLAY 29-137

2.5% 5/2 grayish brown moist in the compact at 117.

12 cm, more silt in the zones 77-117 cm, 133-135 cm, the raffed debris common throughout, plus a 1 cm diameter lithitted lump at 60 cm, end of core

SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

7 PG Station No. 4 Core No. Expedition 115 Chain Ship:

E 137 Total Core Length

Leg No.

					EST	ESTIMATED ABUNDANCES (%)	D ABU	NDANC	ES (	(1			1	
		Ino	rgani	C P	Meterial			.8	oden	Biogenous Material	ateri	وا		
			Silt	Silt & Sand	P			3	Calcareous	Sus		Sil	Siliceous	Sn.
LEVEL	SEDIMENT TYPE	Detrital Salang	Mi cronodul es	Zeolites	Volcanic Shards	CJSY	Forams	2 [ t 2 2 0 1 onn 6 V	preropods	Discoasters	sua410	Diatoms	& inslotbes	Sponges
1 cm	calc ooze	2	-			17	20	25			5			
10 cm	unfoss clay	16	2			82		11			ä			
70 CB	unfoss clay	14	2			*		ti			Ħ			
132 сп	cale clay	4	-			78	Ħ	15			2			
														-

Page 1 of 1

Ship CHAIN Cruise 115 Leg 1 Sto. 5 Core No. 5PC.
Total Length 81 cm. Lat 69-44.71% Long 25-77.44% Depth 54-84 Margr.
Core condition Exellent Date Described 15 Maril 15 by 1 Bredom
Physiographic location GAMBIA ABYSSAL PLAIN.

CALC 002E
10YR 6/3 pale brown, 5/3 brown, 4/3 dark brown
impumerable fine microlamination of all colors above
moist slick lutite
5. H
9-87 Detailed Description MASHED AND DISTURBED 

CALC 002E
2.5Y 5/2 stytah brown
2.5Y 5/2 stytah brown
4.5Y 5/2 stytah brown

very moist slick lutite
end of core
end of core
Note; the bottom four sections of this core were lost
during recovery as core cutter sheared off upon pullowt.

12.17

PLESSTEENE

'T'

ending wal

1

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

E Total Core Length 87 Station No. Core No Expedition 115 Ship: Chain Leg No.

					EST	ESTIMATED ABUNDANCES (%)	D ABL	MDANC	ES (	*	1		1	
		Ino	rgani	Inorganic Material	erial			8	ogen	Biogenous Material	ateri	9	1	1
			Silt	& San	P			Calc	Calcareous	Sn	T	Sill	Siliceous	S
LEWEL	SEDIMENT	fethta0 enterp	Mi cronodul es	Zeolites	Volcanic shards	Clay	2m6707	2[f220fonn <b>6</b> N	Pteropods	Discoasters	0thers	emoteta	Radiolaria	Sapuods
6 cm	calc ooze	1	90			56	-	30		~	٣			
50 cm	calc ooze	9	2		ä	94	-	35		2	5	~		-
86 CH	calc ooze	9	4		ä	97	3	35		11	2	~		-

Page 1 of 1

Ship warning Cruise 115 Leg 1 Sta 5 Core No. 5PE.
Total Length 151 cm. Lat 09 4431'N Long 26-92MV Depth 5444h dar.
Core condition EXELUTINE Date Described 154milit by 1844h dar.
Physiographic location GAMBA ABVSAL PLAN.

CALC 002E

ONE At 14pt pellowish brown
faint brown motifung common throughout
moist slightly silty lutite with scattered forams
very 6
5-15 Detailed Description 0.5 1 1111 Lithologic resmene.

HIGHLY CALC CLAY WITH WE MICRO NODULES 1978 6/3 dark brown immerable fine microlaminations of the colors above moist slick lutte CALC OOZE S, H 1111

11 1

1 1 1

T'e

2.5Y 5/2 graytsh brown homogeness 5-90 cm, inclined and irregular, lighter silty homogeneous 5-90 cm, inclined and irregular, lighter silty very moist slick lutite 15-90 cm, very moist slick lutite 15-90 cm, very silty lutite 90-100 cm 5, H HIGHLY CALC SILIC CLAY.

1078 6/3 pale brown

1080 18/3 pale brown

1081 18/3 pale brown

1181 18/3 pale brown

1182 18/3 pale brown

1183 18/3 pale brown

1183 18/3 pale brown

1183 18/3 pale brown

1184 18/3 pale brown

1185 18/3 pale brown

+ 1,1 1

5 سلب

HIGHLY CALC CLAY WITH WE MICROMODULES

10TR 6/3 pale brown, 5/3 brown, 4/3 dark brown
complete fine intermicrolamination of the colors above
moist sikek lutter 112-115 115-134 

1 ×

renoting

CALC OCCE.
2.3Y 5/2 grayish brown
homogeness 115-133 cm, irregular lighter silty laminations
13-144 cm
modet slick lutite 115-133 cm, very silty 133-134 cm S,B 134-151

HIGHLY CALC -SILIC CLAY, GRADES TO UNFOSS CLAY
INTR 6/1 pale brown
common light gray and gamy mottling throughout
firm.compact.slightly silty lutte with abund. forams
and of core
litts core is suspected to be an example of a multiple penetration (pilot core rebound) recovery; is to penetration
0-112 cm, 2nd penetration 112-151 cm, the second penetration
has all features of the first but has been greatly compacted
due to the resistance offered by the sediment already in the
liner.

SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

5 15 Total Core Length Station No. Core No. Chain Expedition Leg No. Ship:

12 cm   13 cm   15 c			1		1	EST	ESTIMATED ABUNDANCES (X)	D AB	MDANC	ES (	1	1	3		
Type				Silt	& San	9	T		Cal	are.	0	2	Sil	ceo	Sn
cm calc coze 5 10 tr 49 1 30 tr 5  hy calc clay ca with Mn micro. 2 18 54 1 22 tr 3  ca with Mn micro. 2 18 54 1 22 tr 3  ca calc coze 5 5 tr 48 1 35 5 1  ca detritus 80 4 5 8 8 3 1  ca calc coze 5 4 6 1 35 tr 5 1  ca calc coze 5 4 6 1 35 tr 5 1  ca calc coze 5 4 6 1 35 tr 5 1  ca calc coze 5 4 6 1 25 1  ca calc coze 5 4 6 1 15 tr 5 1  ca calc coze 7 6 10 15 tr 5 1  ca calc coze 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	LEVEL	SEDIMENT	Detrital Smins		sətifoəz	Volcanic	Clay	2ms 107	sitssolonnsM	Pteropods	Discoasters	others	SmotstQ	BitafotbeA	Sponges
CER WITH ME MICTO, 2 18 54 1 22 tr 3  CER CALC CORE 5 5 tr 48 1 35 5 1  CER CALC CORE 80 4 5 8 8 3 1  CER CALC CORE 5 4 66 1 35 tr 5 1  CER CALC CORE 5 4 66 1 35 tr 5 1  CER CALC CORE 5 4 66 1 35 tr 5 1  CER CALC CORE 5 4 66 1 15 tr 5 1  CER CALC CORE 5 4 66 1 15 tr 5 1  CER CALC CORE 5 4 66 1 15 tr 5 1		calc ooze	2	01		Ħ	67	-	30		Ħ	2			
cm detritus 80 4 5 8 3 1  cm detritus 80 4 5 8 3 3 1  cm silic clay 2 1 67 10 15 tr 3 1  cm calc coze 5 4 46 1 35 tr 5 1  cm unfoss clay 2 2 2 96 tr tr fr tr rr  cm unfoss clay 2 2 2 96 tr tr fr tr rr  cm unfoss clay 2 2 2 96 tr tr fr tr rr  cm unfoss clay 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 96 tr tr tr rr  cm unfoss clay 2 2 2 2 2 96 tr rr  cm unfoss clay 2 2 2 2 2 2 96 tr rr  c		hly calc clay with Mn micro.	2	18			54	-	22		ä	9			
cm detritus 80 4 5 8 3 3 4 highly calc. 2 1 67 10 15 tr 3 1 calc cola calc coze 5 4 46 1 35 tr 5 1 cm unfoss clay 2 2 2 96 tr tr tr tr tr calc coze calc calc calc calc calc calc calc cal	50 cm	calc ooze	5	5		r.	48	1	35			5	7		1
Alic clay 2 1 67 10 15 tr 3 1  calc coze 5 4 46 1 35 tr 5 1  unfose clay 2 2 96 tr tr tr tr tr	95 cm	detritus	80	4			5	80				3			
unfoss clay 2 2 9 96 tr tr tr tr tr	110 сш	highly calc-	2	1			67	10			1	6	-		-
unfoss clay 2 2 2 96 tr tr tr tr tr	125 cm	calc ooze	2	4			94	-	35		5	2	-		~
	150 cm	unfoss clay	2	2			96	Ħ			ä	7			5
															1

Page 1 of 3

Ship CHAIN Cruise 115 Leg 1 Sta 6 Core No. 6 PC.
Total Length 810 cm. Lat. 09:38.0 N Long 12: 01.0 W Depth 4800H. Core condition ExtenceNT Date Described 14 Phill 5 by 18 AND A. Physiographic location GAMBA ABYSSAL PLAN.

Lithologic

10YR 4/4 dark yellowish brown extensive matbling and mottling with dark brown, very dark graypab brown and gray staylab brown and gray moist slick luttle with scattered forams, 0-6 cm and a pocket of foram sand 35-39 cm Detailed Description CALC SILIC OOZE 0-40 Nessonie de la companya de la compan

10YR 4/2 dark grayish brown extensive brown mottling throughout moist slick lutite with scattered forams CALC SILIC OOZE G mottled

CALC SILIC OOZE
IOTR 6/4 light yellowish brown
extensive gray and grayish brown mottling and marbling
moist shick lutter with a few forams S mottled 99-45

010

101

Te 7

0 + 0

100

SILIC CALC OOZE S mottled

2.5% 3/2 very dark grayish brown excessive light vellowish brown and light brownish gray mot-ting 82-100 cm. moist slightly silty lutite with scattered forams mottled 1101

1078 6/3 pale brown grades to 5/4 yellowish brown extensive pale brown and light brownish gray mottling scattered forams throughout, slightly silty more compact lut. SILIC CALC GOZE mottled 100-150 150-226 40000 0.0000

10YR 6/4 light yellowish brown grades to 6/2 light brownish very extensive dark gray and grayish brown mottling and SILIC CALC GOZE GRADES TO SILIC CLAY marbling throughout moist slick lutite with a few forams gray

1491

100

226-270 

HIGHLY CALC SILIC CLAY
10TR 6/4 light yellowish brown grades to 5/6 yellowish brown silght gray and light gray motifing sost more compact luttle with abund, formas excellent forma rich gray burrow spans entire liner at 10YR 5/8 yellowish brown intensively mottled with light and dark grays 273-290 cm moist slightly silty lutite with abund. forams HIGHLY CALC SILIC CLAY unit basal contact S inclined 10° 4

1

VISUAL CORE DESCRIPTION

Page 2 of 3

Core No. 6Pt Leg / Sta. 6 Ship CHAIN Cruise 115

Detailed Description G mottled 300-315

Lithologic

CALC SILIC OOZE 107R 6/3 pale brown grades to 5/2 grayish brown extensive faint very pale brown and light yellowish very abund. forams in moist silty lutite brown mottling Smottled

CALC SILIC OOZE
10TR 6/6 becaming yellow grades to 5/4 yellowish brown
10TR 6/6 becaming yellow grades to 5/4 yellowish brown
10TR 6/6 becaming gray and very pale brown mottling
slick moist lutite with a few forams included in the mottles
large lcm x 2 cm lithified lump at 340 cm 315-365

| | | |

8

10YR 5/4 yellowish brown very extensive large and small dark gray and grayish brown SILIC CLAY 365-410 131 0 0 11/4 1

stiffer more compact lutite with very few forams G mottled SILIC CLAY mottling 410-440 00000 14 4

Ter

107R 5/6 yellowish brown grades to 4/3 brown common light gray and dark grayish brown northing compact luttle with a few partially lithified inclusions 2mm lithified concave upward yellowish brown lamination at 431 cm

000000

IONR 5/2 grayish brown grades to 3/1 very dark gray slight faint pale brown mottling throughout smooth compact lutite grades to slightly silty lutite with scattered forans SILIC CLAY S mottled 0000

10YR 6/3 pale brown grades to 6/4 light yellowish brown slight gray mottling throughout, extensive in the zone 477-482 cm SILIC CLAY

and of cor

REK PULLE

36

1

very compact lutite with a few forams scattered, more abund at upper contact SILIC CLAY 10YR 5/1 gray and 4/1 dark gray S mottled 485-522

a few im rge elliptical dark gray mottles moist less consolidated lutite with a few forams repeated, lithi fled, almost dry, olive gray 2 mm thick laminae sontied

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 3 of 3 200

VISUAL CORE DESCRIPTION

Core No.

و

Sta

Leg

デ

Ship CHAIN Cruise

ESTIMATED ABUNDANCES (%) 6 PC 20 15 35 75 25 12 1 Total Core Length sffssofonnsN Station No. 4 S Core No. 20 25 57 89 89 19 06 87 86 06 17 Clay 85 84 Spanic Inorganic Material Silt & Sand ŗ 7 Zeolites tr Micronodules 3 2 7 Detrital grains 3 3 2 4 650 cm calc silic oos sl silic clay 750 cm sl silic clay 115 silic ooze hly calc silic clay calc coze silic ooze SEDIMENT 610 cm silic clay stife clay silic clay silic clay nanno ooze Che in TYPE 00ze Expedition calc Leg No. Ship: 75 GB 1 cm 390 сш 490 cm 595 cm 290 cm 317 сш 200 cm 869 cm 90 cm LEVEL 5.1.3. SILCATE SILIC CLAY GRADES TO SILIC CLAY
5.1.3. Sirong brown grades to 5/4 yellowish brown
slight gray and grayish brown mottling
smooth compact luttle
smooth compact luttle
smooth sellittle black laminated 0.5mm, spans entire liner
at 598 cm, semilithified sediment found 2 mm shove and below
laminated pavement, another large laminated lithification
602-604cm spans liner, some what concave upward, the
entire some is very compact, almost dry and slightly disturbed in coring SIGHTLY SILIC CLAY
LOTR 6/4 Light yellowish brown grades to 6/3 pale brown
common gray and dark gray mottling throughout, very extensive
and dominant in the zones, 716-738, 750-776, 815-840 cm
firm very compact silty lutite with scattered forms mostly
fn mottled zones 624-680
CALC SILIC OOZE
LOYR 6/3 pale brown
massive dark grayish brown mottles and burrows dominate the
zone 630-645 cm
compact slightly silty lutite with scattered forams more
abund. 624-645 cm CALC SILIC COZE GRADES TO SLICHILY SILIC CLAY LOYR 5/1 gray grades to 5/2 grayish brown extensive light gray and dark gray marbling and mottling 10VR 5/2 grayish brown grades to 6/3 pale brown extensive Large,gray and gray — brown mottling throughout slick but compact lutite with scattered forams in mottles SILIC CLAY GRADES TO SLIGHTLY SILIC CLAY
10TR 5/4 yellowish brown grades to 6/3 pale brown
very fafat light gray mottling found commonly 557-575 cm
moist compact slightly silry lutite with scattered forems
grades to abund. IOTR 7/4 very pale brown extensive light gray mottling and burrowing firm slightly silty lutite with scattered forams end of core compact slightly silty foram rich lutite Detailed Description throughout NANNO OOZE G mottled 542-584 866-870 917-089 Lithologic

<del>իսորակավավագարակարակակավառակակակավագարակ</del>

870

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OCHLHS

2 3 Biogenous Material 2 1 Radiolaria 20 18 0 Diatoms 4 = ٣ Discossters Calcareous preropods

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Ship CHAIN Cruise IIF Leg 1 Sta 6 Core No 6 PG

Total Length 163 cm. Lat. 04°300'N Long 22°01.8V Depth 4100 m.m.

Core condition Excellent. Date Described lateril To by J. Brita.

Physiographic location GAMBIA ABY SEAL PLAIN.

CALC SILIC OOZE GRADES TO SILIC CLAY WITH Mn HICRONODULES
10TR 4/4 dark yellowish brown
10TR 4/4 dark yellowish brown
and yellowish brown mottling and marbling
slick moist lutite with scattered forams most abund, at top Detailed Description 0-36 Message and a second a second and a second and a second and a second and a second a Lithologic

HIGHLY SILIC CALC CLAY 2.5Y 3/2 very dark grayfsh brown grades to 4/2 dark grayfsh of core lamination of slick black flecks 20-22 cm, 34-36 cm G mottled brown

very extensive brown and yellowish brown mottling and marbling ing fing a state of the most lutite with a few scattered forms of mottled 86-108 

1-0-0 10-10SILIC CLAY WITH DETRITUS
1078 6/3 pate brown grades to 5/6 yellowish brown
1078 6/3 pate brown grades to 5/6 yellowish brown and light gray mottling and marbing throughout moist slightly slity lutite, forams very abund. 86-93 cm, absent theresfer

108-128
HIGHLY CALC SILIC CLAY
HIGHLY 4/2 dark grayish brown
common pale brown mottling 120-128 cm
moist slightly silty lutite with a few forams 

2

128-153
HIY CALC SILIC CLAY
1078 6/4 11ght yellowish brown grades to 6/3 pale brown
1078 6/4 11ght yellowish brown grayish brown mottling and
burrowing
moist slightly silty lutite with scattered forams
end of core

5

PENTOCENE.

15

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 6 PG Station No. \_ Expedition 115 Ship: Chain

E

Total Core Length 153

Leg No.

		J.	inem	Inormanic Material	EST	ESTIMATED ABUNDANCES (%)	D ABU	NDANC	ES (	(1	1 tor	-	1	
			Silt	Silt & Sand	P			Calc	Calcareous	Sn		lcareous Siliceous	ceor	2
LEVEL	SEDIMENT	Detrital grieng	re fubonovo i M	sattloaZ	Volcanic shards	Clay	Forams	sfissolonnsk	pteropods	Discoasters	crent0	2mots to	Rediolaria	Sponges
1 CB	calc silic ooze	2	8			42	2	20			3	13	1	-
35 cm	Mn micro	5	35			45					1	14	2	-
50 CB	hly silic	2	2			72	1	3		Ħ	-	13	2	-
100 cm	with det	15	6			75					1		2	-
152 cm	hly calc stlic clay	2	-			11	6	1		2	6	4	1	5
-														

Total Length 870 cm. Las ī, Cruise \_ Physiographic location. Ship CHAIN

10YR 7/3 very pale brown moist foram sand entire unit somewhat washed and reworked 5-17 Detailed Description CALC OOZE CALC OOZE 0-5 414 Lithologic 1

CALC SILIC 002E
2.5Y 4/2 dark grayish brown grades to 3/2 very dark grayish brown and back to 4/2
extensive light gray, pale brown and light yellowish brown 107R 6/4 light yellowish brown faint irregular light gray mottling and marbling very moist unconsolidated lutite with scattered forams, abund, mottles G mottled

CALC SILIC OOZE
107R 6/4 light yellowish brown grades to 6/3 pale brown slight faint light gray mottling moist, slightly sility lutite with abundant forams very G firmer, slightly silty lutite with scattered forams S horizontal 1 101 10

CALC SILIC OOZE 107454 high yellowish brown grades to 6/3 pale brown then 1078 6/4 188h yellowish brown grades to 6/3 pale brown to 7/3 very pale brown wery pale brown mottling slight faint light gray and very pale brown mottling molst lutite with abund, forams grades to scattered 136-142

0

7007

Washed and disturbed pocket of silty lutite with very abund. forams CALC SILIC OOZE 142-160 

10TR 6/4 light yellowish brown common to extensive light and dark gray mottling and burrowing common commerce, alightly silty luttle with scattered formas forem rich, 1.5 cm wide very pale brown burrow spans entire liner at 153-155 cm. CALC SILIC OOZE
1078 5/2 graylab brown grades to 4/1 dark gray
1078 5/2 graylab brown grades to 4/1 dark gray
1078 6/2 graylab brown grades
1078 5/2 graylab brown brown
brown burrows apan entire liner, 160-170 cm
compact slightly silty lutific with scattered forams
control 160-182 

101

8

VISUAL CORE DESCRIPTION

Ship CHAIN Cruise

Lithologic

Poge 2 of 3

Core No. 784 Leg 1 Sto. ī

Detailed Description 182-260 CALC 00ZE

varying hues of 10TR 6/2 light brownish gray, 6/3 pale brown and 6/4 light yathorish brown common light and dark gray mottling throughout scattered to abund-forams throughout firm slightly silty CALC CLAY

10TR 5/6 yellowish brown
extensive pale brown and very pale brown mottling
compact silty lutite with scattered forams S mottled 260-279 1110 1111 +

1 10

1

101

717. 3

10

CALC CLAY
10TR 6/3 pale bnown
extensive faint gray and light gray marbling and mottling scattered forams in firm slightly silty lutite G mottled 279-345 191 1000 古典で

CAIC CLAY

10TR 5/4 yellowish brown
extensive large gray and dark gray mottling throughout
extensive large gray and dark gray mottling throughout
smally luttle with very few forams except scattered in mottles
smottled 10TR 6/2 light brownish gray extensive dark gray mottling extensive dark gray light yellowish brown and gray mottling CALC OOZE 364-410 101010101 101 11

345-364

10TR 6/4 light brownish gray grades to 6/3 pale brown faint gray shadowy, matching 410-430 cm, thny gray spherical mottles extensive 430-457 cm firm, occapic; slightly silty lutte with scattered forms large, dark gray, I cm wide burrow spans entire liner at this cm. and burrowing firm slightly silty lutite with scattered forams 1 101

1

CALC 002E
2.5Y 5/2 graytsh brown
extensive light gray, gray and pale brown mottling and
earthsling throughout 457-493 1111

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matbling throughout compact lutite with very few forams except scattered in mortles S irregul r

Poge 3 of 3

-- Sta Leg 15 Cruise Ship CHAIN

VISUAL CORE DESCRIPTION

Core No. 19C Detailed Description

Lithologic Log

493-535

CALC OOZE

CALC OOZE

CALC OOZE

CALC, State brown grades to 6/4 light yellowish brown common, faint, gray and light gray mottling

compact slightly silty lutite with scattered forams
watery gray foram rich pocket at 510 cm

S laminated

10VR 7/2 Hight gray grades to 6/3 pale brown, then to 5/3 brown a few very pale brown burrows in the some 559-572 cm very firm smooth lutite with abund. forams grades to very few

592-

CALC OOZE

lOYR 4/1 dk. gray grades to 6/3 pale brown a few light gray and pale brown mottles scattered throughout, extensive light yellowish brown marbling in the zone 603-612 cm

somewhat less consolidated, slightly silty lutite with scattered forams

varying hues of 10YR 6/2 light brownish gray and 6/3 pale brown

extensive, faint light gray and gray marbling and mottling darker in the zones 695-724 cm compact slightly silty lutite with scattered forans more abound towards unit basel contact S inclined 7°

IOTR 5/4 yellowish brown monogeneous overall accept for 3 light brownish gray horizontal burrows 803-814 cm smooth compact lutite with very few forans

S burrowed 814-870

CAIC OOZE GRADES TO CALC SILIC OOZE
10TR 6/2 Light brownish gray grades to 6/4 light yellowish
brown and then to 6/3 pale brown
very fitting compact, slightly silty lutite with abund. forams
end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

7 PC Station No. \_ Core No. Expedition 115 Ship: Chein

870 Total Core Length

Leg No.

5

OCHLHS

					-		
		SI	sabuods		-	2	t
1		Siliceous	StrafotbaR		ä	-	
-	~	511	2mot & FO		•	12	ä
	Biogenous Material	T	others	01	2	3	2
*	Show	Sns	Discoasters				
ES	000	Calcareous	pteropods				
ESTIMATED ABUNDANCES (%)	8	018	2[1220]onneN	20	25	35	35
9			Porams	4.5	1	1	10
K			Clay	23	94	37	94
EST	erial	P	Volcanic shards				
	Inorganic Materia	Silt & Sand	2eo11tes				
	gani	311t	Mi cronodul es		80	5	3
	Inor		Detrital grains	2	2	2	-
_		Ц			4		
					00	00	
			¥		9	9	au
			TYPE	calc ooze	calc silic oose	=	200
			Z Z	9	9	9	2
				5	3	calc silic oose	calc ooze
			_				
			LEVEL	1 CB	20 св	110 сп	210 сш
			-		"	=	2

F1400

1 1 2 1 0 -3 S 1 ~ • 20 20 65 55 35 20 20 15 15 4 = 52 20 22 21 2 7 3 calc silic oos 650 cm calc oose 750 cm calc ooze calc oose 800 cm calc ooze 869 cm 550 cm

= 1

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10 3

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20

tr 1 5

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270 cm calc clay

calc ooze

370 cm 470 cm

calc oore

5

2

53

Ship CHRIN Cruise IIF Leg 1 Sta 7 Core No 776 Total Length 183 cm. Lat. Diff Leg 1 Long 2008-1V Depth 3806-m-serv. Care condition Excellent Diff Date Described 1747-175 by 1804-2.
Physiographic location GIRAN LEONE RISE.

0-20

CALC COZE

10TR 5/2 gayish brown grades to 6/3 pale brown moist silty lutite with very abund. forams

G textural

20-35

CALC COZE

10TR 7/3 very pale brown
foram sand
5 inclined 15°

25-48 

CALC GOZE

CALC GOZE

IOTR 5/2 grayish brown grades to 6/3 pale brown
moist sitty lutite with very abund. forams
G textural
48-65

CALC OOZE
CALC OOZE
10TR 7/3 very pale brown
foram sand
5 facilined 15°
65-88

CALC SILIC 002E

10TR 6/4 Lt. yellowish brown
extensive faint light gray mottling and marbling
moist unconsolidated lutte with scattered forams
6 mottled
88-103

and of we

12

neistoiene.

CALC ODZE

2.7% 4/2 dark grayish brown grades to 3/2 very dark grayish brown and back to 4/2 grayish brown and back to 4/2 grayish brown and light gray, and light yellowish brown motifinate slightly silly lutite with scattered forms finate slightly silly lutite with scattered forms and of core. Note; but to a repetitive occurrence of similar lithologies this core is auspected to be an example of a multiple penetration (pilot core rebound) recovery, lst 0-25 cm, 2nd 25-103 cm.

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

7 PG Station No. Core No. Expedition 115 Chain Ship:

103 Total Core Length

Leg No.

CE

S	1		Sponges	5	#		1 [		TT	1	
		Siliceous	Binslotban	-+			2	2		+	
	10	Sili	2mode f0	-	7		9	6		1	
	teri	T	219410	•	2	01	4	80			
	Biogenous Material	ST	Discoasters	2							
ES (	Doen	Calcareous	Pteropods								_
NDANC	8	Cal	sffssolonneN	25	28	18	20	20			
ABU			Forams	15	35	45	01	4			
ESTIMATED ABUNDANCES (%)			Clay	53	30	27	65	62			
EST	erial	Silt & Sand	Volcanic								
	c Mat	San	Zeolites								
	gani	ilt	Micronodules	5	1		-	-		T	
	Inor	5	Detrital	2	2	t	1	8			
			SEDIMENT TYPE	calc ooze	calc ooze	calc ooze	calc silic oof	calc ooze			~
			LEVEL	1 cm	30 сш	55 cm	80 cm	102 сп			

Poge 1 of 2

0

Core No. 8 PL

10TR 8/2 white grades to 8/4 very pale brown very slight, faint very pale brown marbling firm drier, very slith lutite with abund. micro black flecks a few irregular fragment of thin Mn pavement scattered 770-773 very S light colle.

In the collection of a strong brown and white, pavenances undules and fragamets of both, in a somewhat disturbed state. One attiffened layer follows another sometimes inclined or mearly inverted and almost always found to have a thin "painting" of New 7 on its upward surface. A bit of light vellowish brown lutter serves a matrix in the zone 783.791 cm and a very stiff light olive gray and white compact calc clay surrounds the chert. Like pavements at 83.4836 cm and continues to the chert. See attached and separate smear alide sheet for details. HIGHLY CALC CLAY WITH DETRITUS GRADES TO CALC GOZE
HIGHLY CALL CLAY WITH DETRITUS GRADES TO CALC GOZE
10YR 6/4 light yellowish brown grades to 6/6 brownish yellow
and then to 7/4 very pelle brown
extensive intermetting of the colors above in the zones
695-730 cm, 745-761 cm
firm compact but slick lutite
S mottled
763-773 CALC 002E
10TR 6/6 brownish yellow grades to 2.57 7/4 pale yellow comeon small round intermortling of the two colors above throughout, also a zone of gray (micromodule) shadowing A striking assembly of various semi and totally lithified 640-643 cm firmer but slick compact lutite

227
SMEAR SLIDE DESCRIPTIONS - M.H.O.J. SEDIMENT CORES

	EX	P.				LEVE	1. 774	2. 780	3. 785	4. 795	5. 800	6. 810	7. 811	8. 825	9. 835	10.836							
			S	H 1	з н с	oo ⊭⊣ <b>∢</b> oo			Ħ	1	#	Ħ		-									
					s	Sponges	-	-	-	-	-	ב	Ħ	4									
					Siliceous	StrafotbaR	Ħ		Ħ		Ħ	2		-									
		E		le e	Sili	2mots i Q	2	2	4	2	3	-	ī,	12									
				Material		Отреча	2	4	5	9		9	5	2	10	10	9	7	4	2	15	80	5
		188	<u></u>	S	ST	Discoasters	3	2	2	2	2	7	-	-	-	ţ	2	80	25	30	9	10	
			ES (	Biogenous	Calcareous	sboqoratq																	
0	0	gth	NDAN	8	2	sitssotonneN	40	35	07	45	25	20	17	40	12	2	04	7	10	20	5	20	2
		e Len	D ABU			F078mç	2	9	7	80	20	09	65	80	2	ä	10	11	-	-	20	20	1
	Station No.	Total Core Length	ESTIMATED ABUNDANCES (%)		_	Clay	07	45	37	33	15	10	10	24	19	82	04	99	59	43	53	07	5.8
	Stat	Tota	EST	Material	P	Volcanic	ä	Ħ	Ħ			ä			ä						1		303
				c Mat	San	zeolites									5								
				Inorganic Mate	ilt	Ri cronodul es	-	2	2	-	-	ä	7	2	-			9	5	t	7	-	
	1			Inoi		Detrital grains	3	3	ie 2	~	3	2	2	e 2	7	3	2	15	-	-	-	-	5
311	G	1				SEDIMENT TYPE	ooze	ooze	silic oos	9 <b>2</b> 00	ooze	ooze	ooze	silic oos	calc clay	celc clay	calc ooze	det clay	9200	00Ze	9200	9 Z00	calc clav/det
1	8	-				35	ce lc	ca lc	calc	calc	calc	calc	calc	calc	hly o	hly celc	calc	hly calc	calc	calc	calc ooze	calc	calc
7	Expedition	Leg No.				LEVEL	30 сш	100 сш	200 сш	300 сш	350 сш	400 сш	450 cm	502 cm	585 сш	606 сш	625 cm	675 ст	725 сш	750 сп	765 сш	772 сш	880 cm

					Sponges					100											
				Siliceous					-	-	-	-	-	-	-	+	-	+	-	-	-
	-			ice	strafotbaR											-	-	-	-		 -
	E		6	Sil	Diatoms		Ħ														
8			Material		Others	9	5	2	5	9	7	10	2	9	2						
. 1	881	3	S	Sn	Ofscoasters																
		ES (	Biogenous	Calcareous	pteropods																
00	gth	ABUNDANCES	8	S	2[1220]onnsN	3	5	25	9	2	10	80	15	2	5						
9	e Ler		1	T	2m6707	3	35	2	30	6	2	2	2	٣	10						
Station No.	Total Core Length	ESTIMATED			Clay	82	51	84	24	18	9/	19	7.0	80							
Stat	Tota	EST	Material	P	Volcanic	7	2	Ħ	2	3	-	-	4	3	2						
				& Sand	sel i loez		-	01	t	נ	Ħ	Ħ									
			Inorganic	=	Mi cronodul es			2			2				7						
1			Inor	5	Detrital grains	2	1	8	3	2	2		-	3	4						
Om 115	-				SEDIMENT	calc clay	calc ooze	calc ooze	ca ic ooze	calc clay	bly calc clay	hly calc clay	hly calc clay	calc clay	hly cale clay						
Expediti	No.	-				-		-	-	-		-	-+			-	-	+	-		 -
Expedition	Leg No.				LEVEL	774 cm	780 сш	785 сш	795 сш	800 cm	810 сш	811 cm	825 сш	835 cm	10.836 св						
						1	2.	e.	4	v.	9	7.	80	6	2						

Page 1 of 1

Ship CHAIN Cruise 115 Leg | Sta & Core No & Pec.

Total Length 156 cm. Lat. 09 16 17 Long. 19: 3549 V Depth 4572 m.corr.

Care condition Excellent Date Described 21ARUIS by 3 Bracks.

Physiographic location GIERRA LEONE RISE.

Lithologic Description

0-41

CALC 002E

107K 6/3 pale brown
a very few scattered grayish brown foram-rich mottles
scattered forams at core top and in mottles, otherwise very
moist slick unconsolidated lutite Detailed Description 1 1 1 1 1 1 1 1 Pextrement to the total

41-155
GALC 002E
2. V 3/2 grayish brown
homogeneous throughout
very moist slick unconsolidated lutite
end of core 1111

25.

2

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1 1

SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

Core No. 8 PG Station No. 8 Expedition 115 Chain Ship:

CIM 155 Total Core Length

Leg No. 1

		S	Sponges	-	-	
		ceon	strafotban			5
	al	Sili	2mode to	2	3	7
	steri		Others	6	4	4
(3	Biogenous Material	Sn	Discoasters	-	7	7
ES (	oden	Calcareous	prenupods			
ESTIMATED ABUNDANCES (%)	8	Calo	2[122010nn <b>6</b> N	25	07	3
D ABU		1	2me vo 7	15	9	0
IMATE		1	Clay	51	07	97
EST	erial	Silt & Sand	Volcanic	Ħ	Į,	5
	Pat C	San	Zeo11tes			
	'dan'	111	Micronodules		1	е.
	Inor	S	Detritel	2	3	2
		1-1	ENT ZE	z e	ze	ų v
			SEDIMENT TYPE	calc ooze	calc ooze	2000
				Cal	3	ca ic
			LEYEL	1 8	42 cm	6 9

125

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E.

end of sol

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Page 1 of 3 VISUAL CORE DESCRIPTION John Course 115 Leg 1 Sto. 10 Core No. 9PC.

Total Length 880 cm. Lot 99.04.5'N Long 19.35.1'V Depth 14.85 m.cer.

Core condition EXCELLENT Date Described 14MRIL'S by 1 Blacks.

Physiophic location SIERRA LEONE RISE. Lithologic

CALC 002E 10TR 8/3 very pale brown,10VR 6/4 11ght yellowish brown and 10TR 6/3 pale brown several dark gray burrows span entire liner 10-15 cm steff more compact silty lutite with abund. forams mearly completed but somewhat disturbed band of foram sand at upper contact 2.5Y 5/2 grayish brown moist, unconsolidated, slightly silty lutite homogeneous throughout Detailed Description 4/1 dark gray S irregular 26-37 CALC OOZE CALC OOZE Residence of the state of the s 8118 1018 1019 1 1 10 1 3 1 1 0 1 4 1 0 1 1

CALC 002E
IUTR 6/3 pale brown
Actenity, irregular \$\frac{\psi}{\psi}\$ inclined, large light yellowish brown,
dark gray, grayish brown and very pale brown mottling and
burrowing
burrowing
varying throughout from few to abund. complete irregular intermottling of the 3 colors above compact lutite with scattered forams very nusual 3 cm diameter Mn nodule 31-34 cm has 5 mm coating of lithified lutite

10 10 1

10TR 7/4 very pale brown and 6/4 light yellowish brown complete hitemortling of the two colors above firm lutte with abund. forams S inclined 20° irregularly CALC OOZE CALC OOZE 111111 40 40 40 40000 0401040 देन वर् 100

2000

2.5Y 5/2 grayish brown tregular swiring of dark gray, very pale brown and light yellowish brown moist slick lutite with irregular distribution of forams 10VR 7/4 very pale brown and 6/3 pale brown common mixing of the two colors above firm lutite with abund, forams none to scattered S irregular

200

VISUAL CORE DESCRIPTION

Page 2. of 3

Core No. 9PL 0 \_ Leg \_/ Sta. 15 Ship CHAN Cruise

Detailed Description

marbling moist sitck lutite with abund, formas in the zones 450-475 cm, 505-515 cm extensive (sometimes vertically oriented) grayish brown switing and marbiling throughout slick moist luttee with a few forams at unit basal contact unusual wedge of yellowish brown foram rich luttic intruded 204-210 cm, dark grayish brown lithified lump and fragments cloud 210-220 cm UNPOSS CLAY WITH DETRITUS 2.5Y 5/2 grayish brown extensive,dark gray,pale brown and light gray mottling and 10VR 5/3 brown this first and concave light yellowish brown, wery pale brown and dark gray laminations firm slightly silty lutite with scattered forams ST 3/1 very dark gray
extensive dark gray and grayish brown mottling throughout
moist slick lutite with very few forams, scattered widely
ery dark grayish brown lithified lumps,fragments, and laminations common threughout the zone 1078 6/3 pale brown a few light gray mottles scattered firm slightly silty lutite with forams abund, in mottles CALC 002E

CALC MARK STAY

Very faint gray, shadowy mottling common throughout very firm drier lutite with very abund. forams

S inclined 15° and concave SILIC OOZE GRADES TO CALC SILIC OOZE 180-226 CALC CLAY 107R 3/1 very dark gray 10YR 7/2 11ght gray homogeneous throughout SLICHTLY SILIC CLAY 10YR 2.5/1 black S horizontal foram sand S, irregular S 226-246 CAIC CIAY 70R 5/3 CALC DOZE CALC OOZE 572-595 271-432 515-572 246-271 0 10 10 1 1+ 1 1 700 900 1000 8

Page 3 of 3 9PC

VISUAL CORE DESCRIPTION

Core No.

0

Leg 1 Sta.

Ship CHAIN Cruise 115

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

CALC DOZE

CALC MORE 4.1 dark gray

10TR 4/1 dark gray

common large light gray and very dark gray mottles, 672-704cm

firm slick lutte with a few forams, more abund. in mottles

S mottled

702-732 SF 5/3 oilve a few scattered lithified 5/4 oilve mottles film slightly slity lutite with very few forams and scattered lithified lumps end of core CALC 002E 2.37 4/2 seryish brown grades to 6/2 light brownish gray state light gray mottling stiff much more compact silty lutite with very abund. forams CALC 002E GRADES TO CALC 002E WITH DETRITUE
SY 3/1 very dark gray
extensive irregular gray and pale brown mottling throughout
firm slightly silty lutite with abund, forems
S, H
800-826 CALC 002E WITH DETRITUS GRADES TO CALC 002E
2.95 72 graphs brown grades to 6/2 light brownish gray common gray mottling 800-810 cm
firm silty lutting 800-810 cm
a number of Zum-lem wide laminations of wery pale brown foram sand 810-826 cm a few hazy dark gray mottles at unit basal contact moist slick lutite with a few forams in mottles at basal contact contact ( mottled 645-702 Detailed Description CALC DOZE 826-880 Lithologic Log <del>իտրակավարավարտիակակակակակավարակակակավարտի</del>

Page 1 of 1

Ship CHAIN Cruise 115 Leg 1 Sta 10 Core No 9PC.

Total Length 151 cm. Lat. 91°64.5'N Long. 19°35.1's Depth 4485 m. force.

Core condition Existence.

Date Described 24AMILIS by ABAMILIS by ABAMILIS by ABAMILIS by ABAMILIS. Detailed Description

Lithologic

0-35
CALC 002E
LOTE 6.3 pale brown
homogeneous throughout
moist unconsolidated lutite with a few scattered forams
in the zone 0-10 cm
G mottled
mottled
35-151 

CALC 002E
2.5Y 5/2 grayish brown
homogeneous throughout
moist, firmer, slightly silty lutite, siltier at base
end of core

235

SMEAR SLIDE DESCRIPTIONS - N.H.O.I. SEDIMENT CORES

Station No. 10 Core No. 9 PG Expedition 115 Ship: Chain

Leg No.

ESTIMATED ABUNDANCES (%) Total Core Length 151

6

1   Detrited   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   STATE   SAND   STATE   SAND   STATE   SAND   STATE   SAND   STATE   SAND   STATE   SAND   SAND			Inor	gani	P C	erial			8	oden	Biogenous Material	bter	lai	
TYPE				11	San	P			25	areo	sn		Sti	2
ralc coze         1         4         1         36         8         40         3         4         2           ralc coze         1         3         1         4         1         3         1           ralc coze         5         1         1         4         4         1         3         3         1	VEL	SEDIMENT		Mi cronodul es	29311092		Clay	Forams	sffssofonneN	Pteropods	Discoasters	219410	2mots t0	Radiolaria
calc coze         1         3         tr         43         10         35         3         3         1           calc coze         5         1         tr         27         45         25         2         5		calc ooze	-	4		-	36	00	07		9	4	2	-
calc ooze 5 1 tr 27 45		calc ooze	1	9		Ħ	43	10	35		6	3	1	-
	150 сш	calc ooze	2	-		Ħ	27	45	25		2	~		

end of une

P. Sevenara

7.

18.65

10TR 6/3 pale brown grades to 6/4 light yellowish brown common to extensive grayish brown and gray mottling throughout firm slick lutite with forams ranging from few to abund. CALC 002R. 10YR 5/3 brown grades to 5/6 yellowish brown and then to 6/3CALC 002E
10TR 6/3 pale brown repeatedly grades to 5/4 yellowish brown common light gray and gray mottling in the yellowish brown annes CALC DOZE CRADES TO BICHLY CALC CLAY AND BACK TO CALC DOZE IOTR 6/4 Light yellowish brown repeatedly grades to 5/4 yelverying degrees common to extensive, of light gray and grayab brown mottling throughout firm slightly silty lutte with scattered to abund. formas, more abund. In mottled zones. pale brown faint light gray mottling throughout plus a bit of inter-mottling of the colors above mosts sitck lutite with a few forams G mottled 106 Page 2 of 2 Core No. 2.5Y 3/2 very dark grayish brown slight dark gray marbling and mottling very slick lutite C mottled Detailed Description = Leg 1 Sto. 237 VISUAL CORE DESCRIPTION S trregular CALC JOZE CALC OOZE Ship CHAIN Cruise 115 337-437 437-447 447-557 1 10 1 101 0 - 0 - 0 - 0 9 10-10-0 8.810 101010 10101 11 010 +8-4-8+ 11010 111 Lithologic 111 1 1 9 1 1 101 200 9 28 8 varying hues of 10YR 6/3 pale brown, 6/4 light yellowish brown and 4/2 dark gray brown complete trregular intermarbling of the colors above moist slighly silty lutte with very few forams grading to common, brown, yellowish brown, and gray mottling and matbling moist sightly silty lutite with forams scattered in the zone 154-184 only 10TR 6/4 light yellowish brown grades to 6/6 brownish yellow and back to 6/4 light yellowish brown light gray and dark gray mottling found commonly throughout moist slightly silty lutter with abund. forams 10YR 5/4 yellowish brown; 6/6 brownish yellow; and 5/2 grayish CALC SILIC CLAY GRADES TO UNPOSS CLAY 10TR 5/4 Light yellowish brown grades to 7.5YR 5/6 strong complete and extensive intermotiling of the colors above scattered to few forams throughout, moist slightly silty Ship CHAIN Cruise 115 Leg 1 Sta 11 Core No 10 PC.
Total Length 505 cm. Lat 09'157'N Long 19'26-37W Depth 416.09.cm.
Core condition Excellent. Date Described 29MM 15 by 18hales.
Physiographic location GIERRA LEONE RISE. 2 oge 1 of 2 10YR 7/4 very pale brown homogeneous throughout finner alightly silty intite with scattered forams smottled CALC SILIC CLAY
2.57 4/2 dark grayfah brown
2.57 4/2 dark grayfah brown
2.57 4/2 dark grayfah brown
moist brown and brownish yellow mottling
moist lutite with very few forams 10YR 5/4 yellowish brown common irregular light gray mottling 20-32 moist unconsolidated lutite; very few forams Detailed Description CALC SILIC CLAY CALC SILIC OOZE CALC SILIC CLAY 5, irregular VISUAL CORE DESCRIPTION textural G mottled CALC OOZE CALC OOZE 140-154 154-218 331-337 218-331 Actual Control 11 011 11111 19 111 Lithologic 1 10 المارة ا 200 T 09 7 0

Page 1 of 1

Ship CHAIN Cruise 115 Leg 1 Sta. 11 Core No 10 CG. Total Length 152 cm. Lat 09 15,1 N Long 19° 26,3 W Depth 460 m.cor. Core condition Excellent Date Described 25 MRL To by J. Brade. Physiographic location Sterne Leave Rise. Lithologic

Detailed Description 0-20 Resiment Log 111 14. OCHEHN

CALC OOCE
10TR 5/3 brown
common light yellowish brown and grayish brown marbling
and mottling
abund. forams grade to few in firm slightly silty lutite

CALC SILIC GOZE WITH DETRITUS GRADES TO SLIGHTLY SILIC CLAY 10TR 5/3 broam grades to 5/2 grayish brown 10TR 5/3 brown grades to 5/2 grayish brown fitts bringly yellowish brown and dark gray mottling fitm lutite with a few forams and dark gray mottling very pate brown zone of very abund. forams III-III? cm very pate brown zone of very abund. forams III-III? cm 50-95
CALC GOZE GRADES TO CALC SILIC GOZE WITH DETRITUS
107R 6/4 Light yellowalsh brown
extensive brownish yellow and gray mottling throughout
compact lutite with very abund. forens
S mottled
95-153

75 1

8

SCALE

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10 PC 11 Station No. \_ Core No. Expedition 115 Ship: Chain

Total Core Length 885

Leg No.

ESTIMATED ABUNDANCES (%)

Biogenous Material
Calcareous 0thers 9 Discossiers pteropods sffssofonnsN Forams 38 Clay Volcanic Inorganic Material Silt & Sand 1 Zeolites Micronodules Detrital grains

LEVEL

5 84 86 tr 12 SEDIMENT TYPE

1 12 3 00 4 18 25 91 14 99 Z tr 2 2 tr 3 7 12 1 cm calc silic oos 100 cm calc silic clar 700 cm hly celc clay 191 cm unfoss clay 00Ze 500 cm calc ooze 300 cm calc ooze 400 cm calc ooze 600 cm calc ooze 800 cm cotc

tr 884 cm calc ooze

200

SHEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 1

0-30	CALC GOZE  Strain laminations, bands, and mottles of olive gray 5Y 4/2 and olive 4/4 found commonly throughout  moist slick, rubbery luttle with abund. tiny white flecks  (abell fraga?) found throughout tiny white flecks, distinct but irregalx olive band of extremely abund. white flecks, distinct but irregalx olive band 69-74 cm.  Strain love gray attemely abund. white flecks common throughout extensive olive gray burrows and bands. 340-156 cm moist slick, rubbery luttle with white flecks common throughout do olive gray burrows and bands. 340-156 cm moist slick, rubbery luttle with white flecks common throughout do olive gray and olive mottling 456-474 cm, common de olive gray and olive mottling 456-474 cm, common moist rubbery luttle with common white flecks  Sydocom moist rubbery luttle with common white flecks  Gode core  Sydocom  Gode core	
Ship CHAIN Cruise Total Length 62.0 Core condition EX Physiographic location Lithologic Log		***
Core No. 10 PG Station No. 11 Total Core Length 153 cm	ESTIMATED ABUNDANCES (1)  Sample of the control of	
Ship: Chain Expedition 115 Leg No. 1	SEDIENT SEDIENT SEDIENT STR STR STR 1 cm calc cose 1 loo cm calc silte 100 cm cose with det 20 3 152 cm al silte clay 12 3 3 2 2 2 3 2 3 2 3 2 3 3 2 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	

VISUAL CORE DESCRIPTION Page 1 of 1	Ship CHAIN Cruise 115 Leg 2 Sta 20 Core No 12 PC- Total Length 22 cm. Lat. 22: 16.0'S. Long 12:32.24'E. Depth 10:17 mustre Core condition ExcerceNT Date Described 11MIR 15 by 12 mid. Physiographic location SentiWEST AFRICAN SIPPE: WALVE BAIL		CALC GOZE	very 81 ollive gray marbling found 75-82 cm	very modat, slick, rubbery lutite with trace of white flecks 75-82 cm. Note: When solit shoard ship, odor of hadroom sulfide ass	end of core	1	1 1	10	11:	ran -											
>1	Ship CHAIN Total Length Core condition Physiographic I	Lithologic Log	HEISTHENE -	, 	1	'	1		10	TEISTICENE.	and course	· · · · · ·	,,,,			<b></b>	1,	.,,,		· 1111	1	• • • •
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			5		Sil	smossia					E	7		7								
					ater	Others	6	12*	9	*	7	2	6	5								
					2				ä						one debris							
		1	620	(1)	NOUS M.	Discoasters									41		-				1	
CORES	2			(x)	Siggenous M.	Pteropods Precoasters	2	-	ä				_	-	ono			1		_	-	
MENT CORES	12 PC	20		UNDANCES (%)	Biggenous Material Calcareous Siliceous		40 2	30 1	38	33	07	07 (	30	35	Fish bone		1					
SEDIMENT CORES	12 PC	1	Length	ED ABUNDANCES (%)	Biggenous M.	preropods	3 40	4 30	3 38	01	00	10	2	01	ne [1sh							
.0.1. SEDIMENT CORES	P No. 12 P.C.	1	Length		Biogenous M.	yefJ zmeno4 zffzzołonneM zboqone59	04	30	38	1	-		-		* some figh bone							
W.H.O.I. SEDIMENT CORES	Core No. 12 PC	Station No. 20		ESTIMATED ABUNDANCES (%)	3	smano7 2 [ t 2 2 0 1 0 m s M 2 boqon = 3 1 9	3 40	4 30	3 38	01	00	10	2	01	ne [1sh							
IONS - W.H.O.I. SEDIMENT CORES	Core No. 12 PG	1	Length		3	yefJ zmeno4 zffzzołonneM zboqone59	51 3 40	50 4 30	50 3 38	45 10	8 07	01 07	5 05	45 10	ne [1sh							
CRIPTIONS - W.H.O.I. SEDIMENT CORES	Care No. 12 PG	1	Length		3	Micronodules Zeolites Volcanic Shards Clay Forams Nannofossils	51 3 40	50 4 30	50 3 38	45 10	8 07	01 07	5 05	45 10	ne [1sh							
DE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES	Core No. 12 PG	1	Length		Inorganic Material Biogenous M. Silt & Sand Calcareous	Zeolites Volcanic Shards Clay Forams Nannofossils	51 3 40	50 4 30	tr 50 3 38	tr 45 10	1 40 8	1 40 10	1 50 5	1 45 10	ne [1sh							
SHEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES	Ship: Chain Core No. 12 PC	1	Length		3	Micronadules Zeolites Zeolites Volcanic Shards Clay Forams Nannofossils	tr 51 3 40	1 50 4 30	1 tr 50 3 38	1 tr 45 10	2 1 40 8	2 1 40 10	2 1 50 5	2 1 45 10	ne [1sh							

VISUAL CORE DESCRIPTION Page 1 of 1	Cruise 115 Leg 2 Sta 2.1 Core No. 13PC.  O cm. Lat. 23° 31.35° Long 12' 149° E Depth 2152 m.cm.  Euceusent.  Date Described RMMR15 by 18 or a.  Option. IN AREA SE SUMMS OFF SEWTHNEST AFRICA.	Detailed Description	0-69 Sediment disturbed and dis ordented. Sample was extraded	from a crushed and broken section of liner into present one. Overall color SV 5/4 olive marbled with 4/3 olive:	sediment type calc ooze.	69-205 CALC SILIC GOZE GRADES TO CALC GOZE	1	mosts sizek rubbery idtie with scattered white flecks  S mottled bottom contact  205-226  Annual Contact  Conta	SY 6/3 pale olive extensive pale yellow and olive mottling throughout	much firmer, al silty lutite with scattered forams one excellent elongated burrow spans entire liner at 219 cm	G mottled bottom contact 226-350	NAME OOZE	occasional well formed pale yellow and pale olive burrows throughout	firm al silty lutite with scattered forams	350-410	SY 5/3 olive	extensive raint olive and pale olive burrowing and mottling firm compact little with occasional white flecks of mottled bottom contact	430-459 CALC STLIC 002E	v. al olive agray	6 mottled	NAMNO OOZE SY 5/3 olive		firm compact lutite with occasional white flecks end of core				A BND OF COME
VISUAL C	Ship CHRIN Cruise Total Length SIQ Cl Core condition EXCE Physiographic location	Lithologic Log	DISTURBED	AND +	NEGRIFATED	+ + +	9840	110	1 1	10-1	1 1 1 1 1 1	100	14		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11111111111	1 01 1	† † † † † † † †	111	110	4,	1 4 07	101	1 1	10	1	1
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					erial	-		thers	-	-	-	+	+	+-	+	+	+	L			-	-	+	+	+	1	
					Biogenous Material	-	Sub:	i scoas i	+		+	+	+	+	+	+	+	-			+	+	+	+	+	1	
S JOH		1	87	ESTIMATED ABUNDANCES (%)	denon	raicareons		ceropo	-	-	+	+	+	-	+	+	+	+		+	+	+	+	+	+	1	
NT C	12 PG	20	Jt.	DANCE	Bi	7		satonne	-	45	1	1	1	T		T				1	1	1	1	1			
Full			Total Core Length	D ABU		-	SI	Foran	00	2	T	+	+			T	1				1	T		T		1	
-		Station No.	Con	MATE	1			Clay	50	07	T	1		T	T		T						T			1	
244	Core No.	Stat	Tota	EST	rial	T	spae	oinsolo sk	1		1					1			-		1	T	1	1		1	
22					Inorganic Material	Sand		satifos	-			-	+	+		+		+		1	1	1		1		1	
1101					ganic	216		cronod	-	2	-	+	1	1		+		+			1	+	+	+	1	1	
296					Inon	1	su je.	iestrse 1g	0 _	2						1					1	1		1		1	
244 CHEAD CLITE DESCRIPTIONS - LIN O I SENIMENT CORES		108	No. 2				SEDIMENT	:	calc pose			+		+													
	Ship	Exped	Leg No.				LEYEL																				

247	VISUAL CORE DESCRIPTION
246	SMEAR SLIDE DESCRIPTIONS - N.H.O.I. SEDIMENT CORES

Page 1 of 1

cm. Lat 23° 31.35°S Long 21 Core No 13°C- cm. Lat 23° 31.35°S Long 2° 14.9°E Depth 2132 m.cmr.  Excellent Date Described 12MBR.15 by 15MBC- IN AREA OF SUMMY OFF SOUTHWEST AFM.A.	Detailed Description	0-76 CALC GRADE TO CALC STITE GOVE	57 6/4 pale believe	namegeneous intougnout monists as a slity lutite with scattered forams end of core									
Ship CHAIN Cruise Tatal Length 76 cm. Core condition Exc. Physiographic location	Lithologic	RESTORME	1 1	1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1	1 1	RESTORES -	" - endreg une			,,,,	արուդուսիուսիուսիուսիուսիուսի
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		5		Siliceous	SmotsiO	10	00	3	2	-	6	3	-
		-		teria	0thers	5	2	10	1	_	3	5	
		210		Biogenous Material	Discoasters	-	-			-	-		
1	1	3	ESTIMATED ABUNDANCES (%)	Biogenou	Pteropods				-		-	-	
13 PC	17	5	ANCE	Bio	slissofonnsM	4.5	20	04	88	17	22	69	8
7	1	Total Core Length	ABUN			8	5	4	2	2	2	5	7
	Station No.	Core	ATED	-	2m6YO7	28	30	07	2	15	15	12	2
Core No	atio	tal	STIM	-	Clay								
3	S	Ĕ		teria	Volcanic Shards	-	7	ä	ä	ב	ä	-	
				& Sa	zeji tes								
				Inorganic Material Silt & Sand	Ri cronodul es	-	-	-	h	-	ä	-	-
				Ino	Detrital grains	2	-	2	1.1	1	_		_
	1	1		11		920	930	-	-		980	9 <b>2</b> 00	
Chain	ition 115	3. 2			SEDIMENT	calc silic oore	calc silic oose	175 cm calc ocze	aguno ooze	aguno ooze	calc silic come	calc silic o	19 UT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Ship:	Expedition	Leg No.			LEVEL	83	75 CB	S CB	207 cm	300 сп	400 сп	440 cm	8

SHEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 1

243

VEL SEDIMENT VEL TYPE  1 cm celc ooze 5 cm sale stilc ooze	Station No. 21  Lithologic  Lotal Core Length 16  Calcarous Faterial  Silt & Sand  Calcarous Fateri	1 tr 20 7 65 2 3 1 1 1 1 1 tr 25 5 50 3 1 tr 5 tr
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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES 250

Page 1 of 1

Occition IN AREA OF SUMMIS OFF SOUTHWEST AFRICE.	Detailed Description	- 0-83 CALC 00ZE	SYR 6/4 pale olive	very moist al silty lutite with scattered forams	NOTE: core is cumulative, represents 10 successive hits of pogo camera frame.	end of core	-			4												
io l	Lithologic	REISTOLENE :	1 1	1 1	ן יייי מ	' '1' 1	1	1 1	1 -		RESTAURE BUND of UNE	0	'T''	 	μ.	 Т	***	т.	,,,,	<b>.</b>	···I·	•••
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				1	S	səbuods	2	6														
					ceous	Radiolaria	2	3														
		E.O		al	Siliceous		3 2	5						-								
		E 2		terial	Siliceous	Diatoms Sinsforbs8								-								
				Materi	-	Others Distoms Radiolatia	3															
1		53 cm	(%)	Materi	-	Discoasters Others Figures Satioleria	3															
22	22	53	DANCES (%)	Materi	-	Pteropods Discoasters Others Discoms	5 3	5 5														
14 CC		53	ABUNDANCES (%)	Materi	Calcareous Siliceous	Nannofossils Pteropods Discoasters Others Discoms	5 3															
1		53	ATED ABUNDANCES (%)	Materi	-	Nannofossils Nannofossils Pteropods Discoasters Others Discoms	25 5 3	10 28 5 5														
1		Core Length 53	STIMATED ABUNDANCES (%)	Biogenous Materi	Calcareous	Forams Nannofossils Pteropods Disconsters Others	54 8 25 5 3	28 5 5														
Core No. 14 cc	Station No. 22	53	ESTIMATED ABUNDANCES (*)	Biogenous Materi	Calcareous	Nannofossils Nannofossils Pteropods Discoasters Others Discoms	54 8 25 5 3	10 28 5 5														
1		Core Length 53	ESTIMATED ABUNDANCES (%)	Biogenous Materi	Calcareous	Forams Nannofossils Pteropods Disconsters Others	54 8 25 5 3	10 28 5 5														
1		Core Length 53	ESTIMATED ABUNDANCES (%)	Biogenous Materi	Calcareous	Micronodules Zeolites Volcanic Shards Clay Rorams Nannofossils Pteropods Discoasters Others Discoms	54 8 25 5 3	10 28 5 5														
1		Core Length 53	ESTIMATED ABUNDANCES (*)	Materi	Calcareous	Zeolites Volcanic Shards Clay Forams Namofossils Pteropods Discoasters Others Diatoms	1 54 8 25 5 3	1 47 10 28 5 5														
1		Core Length 53	ESTIMATED ABUNDANCES (%)	Biogenous Materi	Calcareous	Witchondules Mitchondules Volcanit Shards Clay Ronams Nannofossils Pteropods Others Diatoms Manifosila	1 54 8 25 5 3	1 47 10 28 5 5														

SHEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 1

Ship Craise It? Leg 2 510 27 Core No.  Total Length 815 cm. Lat 24'04'17's Long 22'9919'E Depth  Core condition Excertent Date Described 20'NM15 by Pagingaphic location IN ARCA of CLUMPS, 20'SUTHWEST AFRICA	Log Description	00-100 CALC 002E	5Y 6/4 pale olive	1	6 4 6 4 6 4 6 1 6 1 6 1 6 1 6 1 6 1 6 1	111	extensive olive and pale olive marbling	- 100-200 cm, used a sew well influed distinct burrows found	two clean breaks in core 190-192 cm and 211-216 cm, they	260-813	CALC 002E GRADES TO CALC SILIC 002E AND BACK TO CALC 002E  5	except for gradual changes in hue , unit is homogeneous	moist al silty lutite with scattered forans and white flecks	end of core	1	1 1		111111	1.		1 1	end of use			
506		PLEISTOCEME :	·†••	<u>'</u> ''		.1.	1	1111	† †	, ,	,,,,,	1.1	TT	111	39	· • • • • • • • • • • • • • • • • • • •	'n'n	<u>.</u>	111	1111	38	PLES TOLONE	TIT	* !	7
			T		Sponges	Ħ	Ħ	1					T	1									T		
				Silicanus	sinsloibs#																				
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				Ater	0thers	6	5																	1	
,	1	83	94	Biogenous Material	Statesosid																1				
			ESTIMATED ABUNDANCES (%)	Biogenou	sboqonasq								I												
15 CC	23	ıgth	NDAN	8	2 sffssofonnsM	04	45																		
-	No. 23	Total Core Length	D AB	1	2mero7	4	00																		
ě		Cor	MATE	1	Clay	50	07																		
Core No.	Station	Tota	EST	rial	Volcanic	t	Ħ						1												
				Inorganic Material	salifoa2							-	-					-							
				anic	Mi cronodul es		E				-	-	1	+						-	1		-	+	
	1			Inorg	Detrital sating	2	-																		
	1115	7		-	SEDIMENT	calc ooze	calc ooze																		
Ship: Chain	Expedition _	Leg No.				67 1	63						1					1			- 4		- 1		

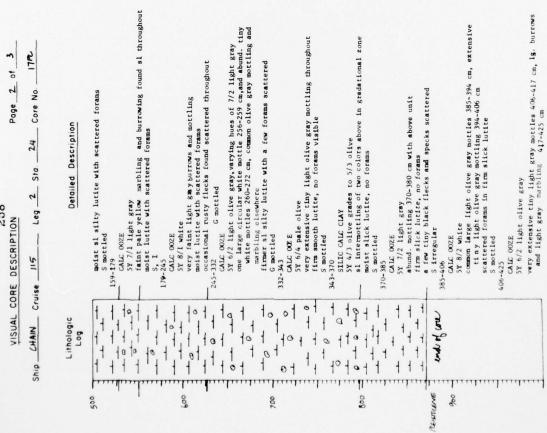
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

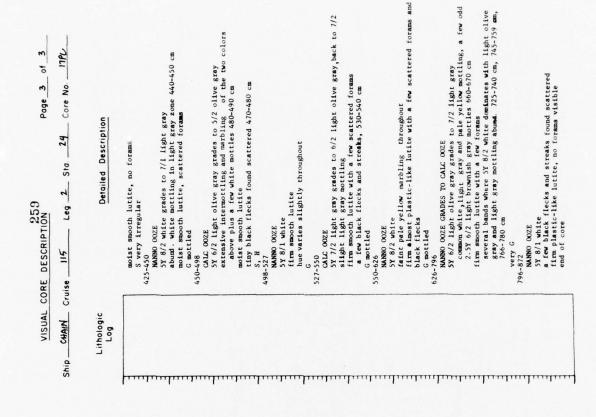
Page 1 of 1

Compaction   115   Station to   23   The Core Length   611   Core   Co	1 01			Core	e No.		16 PC	0						Core condition Physiographic location	EVELLENT Date Described 10 MMR 15 by Brefa.
Total Core Length   813				Sta	tion	No.	23							Lithologic Loa	Detailed
The control of the				Tot		re Le	ngth		813		E		REISTOCE	1	0-77 CALC OOZE
International Contents   International Conte				ES		ED AB	UNDANC	ES (%						1 1 1	5Y 6/4 pale olive homogeneous throughout except one large olive burrow
1   1   1   1   1   1   1   1   1   1		Inorga	anic Me	terial			80	odeno	JE Mat	erial				1 1	extending 2/3's the width of the liner at 75 cm
		.5	lt & S	pue			3	areou	5	S	licec	sno		11	moist smooth lutite with a few scattered forams end of core
tr tr 25 10 55 3 4 2 1  1		satene		Volcanic		2m6107	sfizzofonn <b>s</b> N					Spondes		11111	
1	l cm calc ooze	11		-	94		35	-				-	3	1 1 1 1	
1	100 cm calc silic ooge	1		ţ	25							2	1	- 1 1 1	
1	150 cm calc silic cope	ä		Ħ	35		07		01		2	2	#	1	
calc silic oome tr tr 57% 5 30 tr 5 tr tr 1 tr calc silic oome tr 58% 3% 25 5 3 tr calc silic oome tr 58% 3% 25 5 3 3 %6% tr calc silic oome tr 59% 4 25 5 3 3 %6% tr calc oome tr 59% 4 25 tr 2 1 3 tr calc oome tr 30% 3 60 3 2 2 tr calc oome tr 50% 3 60 3 2 2 tr calc oome tr 50% 3 60 3 2 2 tr calc oome tr 50% 3 60 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	50 cm hly calc clay	1		-	72		20			-		-	MEISOCENE.	and of cou	
calc silic come tr	5	-		#	09							- 1			
cm calc silic oome tr 58# 3# 25 5 3 * *6* tr cm calc silic oome tr 59# 4 25 3 4 5 tr cm calc oome tr 33* 4 55 tr 2 1 3 tr cm calc oome tr 30* 3 60 3 2 2 tr * high percentage of fecal pellets ** powe beniñic forms ** powe ben forms ** powe beniñic forms ** powe beniñic forms ** powe beniñ		H	-	B	57		30				21	3	נייי		
cm calc siltc come tr 59# 4 25 3 4 5 tr  cm calc come tr 30# 4 55 tr 2 1 3 tr  cm calc come tr 30# 3 60 3 2 2 tr  * high percentage of fecal pellets  ** high percentage of fecal pellets  ** frange, quite regularly shaped  ** frange quite regularly shaped  ** frange found of the fecal pellets  ** frange found of fecal pellets	8	Ħ			58						3	*9*			
cm calc oze tr 30* 3 60 3 2 2 tr 2 1 3 tr 3 tr 2 alcover tr 30* 3 60 3 60 5 2 tr 5	cm calc silic	-	H		59		25				4	2			
cm calc out e tr 30# 3 60 3 2 2 tr  # high percentage of fecal pellets  ## strange,quite regularly shaped  ## strange quite regularly shaped  ## some benthic forams	8				35		55		-		_	3	7		
* high percentage of feeal pellets ** strange-quite fegularly shaped ** strange-dar silceous places  # some benthic forams	cm calc	Ħ			30		09		100		2	2			
** premise, quite regular siliceous places # some benthic forams			-			*	high	ercen	tage	of fec.	11 pe	llets	. In		
+			-			<b>‡</b>	Btran	ge, qui	te re	gular!	y sha	pad	T.		
						#	+	benth!	c for	s ma					
			-						+	-	+		. In		
									-	-	-		[11		

SM AR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

VISUAL CORE DESCRIPTION Page 1 of 3	m. Lat 25'003'S Long 1948'YE RELENT CON TIMENTAL RISE OFF SOUTH WE	Detailed Description	0-5	1	very st_dant browness gray motting at unit pasal comtact scattered forams in very moist at stilty lutite S mottled	5-17 CALC 002E ORK 6/4 Hight yellowish brown intensively motified with pale brown, light gray, hues of very pale brown and white and white moist lutie with scattered forams scattered tiny dk grayish brown flecks throughout 5, H	17-50 CALC 00ZE	7 5/2 light olive gray a number of large well formed white and light gray mottles and hurrous throughout	moist slick lutite	Ly on several very stry, torem itch, per yellow inclined laminations. At 42-45 cm 5% 5/3 olive inclusion of s1 silty lithified lumps of lutite. One burrow spanning entire liner	S CONCAVE UPDATE OF 24 CM		a ve		120-	of 10/2 if 01/0e gray slipale yellow morthing found throughout very few forman in moist mick lutte			one light olive gray mottle at 135 cm	139	CALC OOZE SY 8/1 white	one well defined burrow spans liner at 144 cm
VISUAL	Ship CHAIN Cruise Total Length 972 c Core condition Extl	gic	101	1 1 1 9	10 -	1 1 1 1 1 1 1	1 1 1 1 1 10	101	11	101	91,	101	• • •	11	36	1	lot	1	18	1 1 6	11	101
	Ship CHAIN Total Length - Core condition Physiographic	Lithologic	101		1.	10 + 1 + 11	111	101	181	111	1	1 .1	1 .	of.	100		10	110	0	1110	11	1 1
	0, - 0 1	_	Mesnie	l. L.	T	<u> </u>	11.	111	7	; 1	111	Line	11111	<b>¥</b> 1	, III	الل	بلل	\$	1,,,	Lim	Tirri	8 1111111
			NEIST																			4.
				П	T	Zboudes	1	-	-		-			-						T	T	
					Siliceous	sinslotbaR					+				T							
			E		Sili	2mo 16 t O	2	2														
					Biogenous Material	Shers.	3	8														
		1	11	24	Sus F	Discoasters																
	MENT CORES	1		ESTIMATED ABUNDANCES (%)	Biogenou	pteropods																
	ENT C	23	ngth	JNDAN	Cal	sfissofonnsN	45	47														
	SEDI	.0	Total Core Length	D AB		Forams	4	7														
	M.H.0.1.	Station No.	1 00	IMATE		Clay	4.5	07														
526	. ±.	Stat	Tota	EST	rial	Volcanic	5															
cu.	SNS				Inorganic Material Silt & Sand	sətiloəz		T			T		7							+		
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	ă .		,			(********																
	COPE NO. COPE DESCRIPTIONS - M.H.O.I. SEDI	ition ILS	2 .0			SEDIMENT	calc ooze	calc ooze														
	245	Expedition	Leg No.			LEVEL	1 cm	76 cm														





VISUAL CORE DESCRIPTION Page 1 of 1	m. Lat. 25:00.3's	CONTINE	_	0-15		chemsively mottled with pare brown, nues of very pare brown,	scattered forams in moist lutite	S, H		31-47	CALC 00ZE 10YR 7/2 1t gray	homogeneous throughout modet al silty lutite, scattered forams	47-64 6 more see	LOYR 6/4 It yellowish brown	extensive pare brown, very pare brown, white and it gray mottling	DOLSE Lutite With scattered forans	CALC SILIC 002E	one state with the mottle 65 cm moder alach writes	75-80 several very silty pale yellow inclined laminations	S S S S S S S S S S S S S S S S S S S	TOUR 17 I TOUR	homogeneous froughout	MOTE: Decause of faregular combinations and repetitive series	example of multiple penetration (rebound) recovery,	Ist penetration 0-31 cm 2nd penetration 31-96	ord penetration 96-100 cm end of core		
VISUAL	Ship CHAIN C Total Length 100 Core condition	Physiographic location. Lithologic	Log	Transfer D D D D D	te.	1 6	33	1 1		100	94	4	**	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MEISTREME : UND of LIVE.	,	.d.	····I	,,,,	ļ	m	····I	,,,	1111	т.	,,,,,	
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				E		ial	Siliceous		smots in										-	-	2	2	2					
				<b>E</b> 5		Haterial	Silice			0 0	2	+	9	9	2		4	5	-	2 1	3 2	2 2	3 2					
					(%)	nous Material			smots h	+	5	+		3	2		7	5	-									
900				Cm Cm	ICES (%)	liggenous Material			thers smots	a d		2		3	2		7	5	-	2								
O BOOL	CORES	17 PC		7/5	UNDANCES (%)	Biogenous Material	Calcareous Silice		if scoas ters	0	30 5	2		55 3	55 2	3	56 4	35 5	85									
SECTION TO SEC	10 36 01	=		Length 8/2	ABUNDA	Biogenous Material			shorpods is scoasters shers shors	a d		35 5	9			tr 3				2	3	2	3					
O T CENTIMENT CODES	OLI. SEBIREN CORES	=		Length 8/2	TIMATED ABUNDA	Biogenous Materia	Calcareous		Forams annofossils feropods ifscoasters if acoasters	0 07	30	2 35 5	35 6	55	55		56	35	88	80 2	85 3	85 2	80 3					
09)	H.H.C.L. SEUTENI CORES	=		7/5	TIMATED ABUNDA	Biogenous Materia	Calcareous		Forams  chooses  chooses  forams  forams  forams	46 3 40 a	3 30	55 2 35 5	25 35 6	10 55	4 55	ä	12 56	1 35	3 85	5 80 2	2 85 3	2 85 2	2 80 3					
260 content cone	IONS - M.H.O.I. SELIMENT COMES	=		Length 8/2	TIMATED ABUNDA	Biogenous Materia	Calcareous		Clay forams annofossils teropods ifscoasters ifsees	46 3 40 4	58 3 30	55 2 35 5	25 35 6	10 55	4 55	ä	12 56	1 35	3 85	5 80 2	2 85 3	2 85 2	2 80 3					
260 content room	CATPILLAS - M.H.O.L. SEUTENI CORES	=		Length 8/2	TIMATED ABUNDA	Biogenous Materia	Calcareous		eolites olcanic shards clay forams annofossils forams forams forams	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	58 3 30	55 2 35 5	25 35 6	10 55	4 55	ä	12 56	1 35	3 85	5 80 2	2 85 3	2 85 2	2 80 3					
260	OK OKSUKATIONS - M.H.O.L. SEDIMENI CORES	=		Length 8/2	TIMATED ABUNDA	Biogenous Materia			eolites olcanic shards Clay forams annofossils ifscoasters ifscoasters	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	58 3 30	r tr 55 2 35 5	25 35 6	10 55	4 55	90 tr	24 12 56	56 1 35	3 85	5 80 2	2 85 3	2 85 2	2 80 3					
	N SLICE URSERIPTIONS - M. H.O.L.	Chain Core No. 17	Station No.	Length 8/2	TIMATED ABUNDA	Biogenous Materia	Calcareous		grains grains eolites olcanic shards forams forams annofossils ifscoasters ifscoasters	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ooze 1 tr 58 3 30	ooze tr tr 55 2 35 5	27 25 35 6	31 10 55	36 4 55	tr 90 tr	tr 24 12 56	1 56 1 35	11 3 85	12 5 80 2	7 2 85 3	7 2 85 2	2 80 3					

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VISUAL CORE DESCRIPTION Page 1 of 2	ise 115 Leg 2 Sta 26 Core No. 19PC.  - cm. Lot. 35° 25° 61° 5. Long 09° 15° 01° EXCELLENT.  - Date Described 36 MR 75 by 1 Braden.  - On. ABYS AL PLANT: CAPE 895 M.	Detailed Description	OCIC SILIC 002E 107R 6/3 pale brown	grayish brown 5/2 marbling throughout	scattered forams in very moist si slifty futite washed and disturbed	5-45 CALC OOZE 10YR 7/2 1ight gray	extensive fm.rich black and dk gray flecks and streaks throughout firmer sl silty lutite with scattered forams 5, H 65-49	CALC 002E 10YR 7/3 very pale brown	numerous dark gray and gray laminations and common marbling	firm smooth lutite with a few forams  S, sl concave downward	49-121 CALC 00ZE	2.37 8/2 white light gray 10YR 7/1 shadowy marbling found virtually	throughout, missing only in laminated zone firm smooth lutite with occasional forams	an unlikely but seemingly undisturbed, totally enclosed 1.5 cm diameter, lithified, hly calc clay nodule at 100	cm, also a very small 2 mm piece of the same found at 60 cm, 111-118 cm a series of light gray and white	laminations 1-4 um thick S concave upward	121-128 CAE OOZE	2.5y 7/2 light gray extensive marbling (whirled) with 2.5% 8/2 white	firm smooth lutite with a few forams S, I	- 128-172 CALG 002E	2.5Y 8/2 white occasional faint 10YR 8/1 white or light gray marbling	and mottling firm smooth lutite with scattered forams	S, I 172-176	CALC OOZE 10YR 7/3 very pale brown	extensive marbing (whirled) with 2.5Y 8/2 white sl silty lutte with scattered forans	S, marbled
VISUAL COR	N Cru	Lithol	NEISTENE	1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 0	101	1 1	1	9 1	1 1 1	1 1 1	111111111111111111111111111111111111111	11	11 27	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	111111	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						REISTREME	ومه المسلم المسلم
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			E		Sili		smots it	1	2	3	4	2														
					Biogenous Material	1	suaut)	2 0	5	9	3	00														
			100	()	N Snc	S	et scoas te	1				7														
ORES	9			ESTIMATED ABUNDANCES (%)	Biogenou		spodoual	d																		
MENT CORES	17 PG	54	gth	NDANC	E 3	sı	tzzotonne	30	50	04	35	5.5														
			Total Core Length	D ABU	1		Forams	4	0		7	œ														
1	No.	Station No.	Con	MATE			Clay	57	35	94	55	35					•									
262 SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDI	Core No.	Stati	Tota	ESTI	i a	sp.	oj cento				#		-													
26					Inorganic Material		serifoe	1																		
PTIO					anic 1+ E		icronodu	+-	-	-	-			-	+					-						
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30		1					[61f139	0 -	-	-	11	-														
S SI		115	1	-	•			Ħ			00															
S	9		2			SEDIMENT	3dAL	9200	9200	9200	calc silic	9200														
	Chain	100				SED		calc ooze	calc		alc	calc ooze														
	Ship:	Expedition	Leg No.	-	-		,	83	8	8	e e	8				-										
	5	EX	Le			100.3	-	1	25 0		70 0	66														
			-	-	-			1	1												1					

Page 2 of 2 Core No. 19PL

97

Leg 2 Sta.

Ship CHAIN Cruise 115

VISUAL CORE DESCRIPTION

1. 16.10.

E

Total Core Length 476

Station No. Core No.

Expedition 115 Ship: Chain

19 PC 26

Leg No. 386-476
UNPOSS CLAY/Hm GRADES TO UNPOSS CLAY
LUTR 4/3 dark brown
very large 5/3 brown mottles found commonly 386-440 cm,
numerous clusters and streaks of black flecks throughout
very firm compact luttle, no forams
vertical orientation of black flecks suggests flow in
410-476 cm
end of core alternating sometimes incomplete laminations of colors above (all concave upward). very firm smooth lutite, no forams S concave
NOTE: This entire unit appears somewhat disturbed and
activated. Highly inclined, non-continous and
streaked features suggest flow-in, but well stratified
sediments exist below this section in the core. various inclined swirls, laminations and marbling with 10YR 8/1 white, pale olive and light gray firm smooth lutite with scattered folians UNFOSS CIAY
5X 6/4 pale oilve
51/ght faint 107R 5/3 brown marbling
very firm smooth luttle, no forans
brittle lithified olive pavement 2 mm thick at upper
unit contact
G, marbled
361-386 176-336 CALC OOZE WITH NANNO OOZE INCLUSIONS 2.5Y 8/2 white CALC OOZE
5Y 6/2 Light olive gray
firm smooth lutite, no forams
5, H
356-361 Detailed Description UNFOSS CLAY 10YR 5/3 brown firm compact smooth lutite S very concave upward CALC OOZE SY 8/1 and 8/2 white 353-356 Lithologic Log

## ## ## ## ## ## ## ## ## ## ## ## ##	TYPE			I ou	Increase	Material	1	AD AD	ESTIMATED ABUNDANCES (*)	500		Material	-		
TYPE	### Cose   Cose				Silt	P			Cal	areo	2		Sil	iceou	2
c silic code         1         tr         48         3         40         tr         2         3         tr           c calc coze         1         25         tr         23         3         45         tr         3         5           c coze         1         tr         23         3         45         tr         3         tr           c coze         tr         tr         40         3         50         5         2         tr         1         5         tr           c coze         tr         tr         25         5         69         1         5         tr         1         1           c coze         tr         tr         tr         25         5         69         1         5         tr         1           c coze         1         tr         23         5         2         2         1         1         1           c coze         1         tr         1         2         2         2         2         1         1         1           c coze         1         tr         1         2         2         2         2         2         2	c silic coke         1         tr         48         3         40         tr         2         3         tr           Calc coxe         1         25         tr         23         3         45         tr         3         5           c coxe         1         tr         23         3         45         tr         3         tr           c coxe         tr         tr         40         3         50         5         2         r           c coxe         tr         tr         40         3         50         1         6         tr           c coxe          tr         tr         25         5         69         1         5         tr           c coxe         1         tr         25         5         69         1         6         tr           c coxe         1         tr         23         5         69         tr         1         1           c coxe         1         tr         23         5         5         45         tr         1           c coxe         2         2         2         2         45         45         1         1	LEVEL	SEDIMENT TYPE	satere	Mi cronodul es	VOICANTC	Clay	Forams	2 [ t 2 2 0 1 on n 5 M	Pteropods	Discoasters	sne450	2mo36i0	BineforbeA	Spondes
calc cole         1         25         tr         23         45         tr         3         45         tr         3           c coze         1         tr         tr         40         3         50         5         2         r           c coze         tr         tr         tr         40         3         50         5         2         r           c coze         tr         tr         tr         25         5         69         1         5         tr           c coze         tr         tr         tr         28         3         65         tr         3         tr           c coze         1         tr         23         66         60         1         8         tr           c coze         2         2         2         2         1         6         tr           c coze         1         tr         1         2         7         5         4         1           c coze         2         42         5         45         4         1         1           c coze         1         43         45         1         7         1	colce         1         25         tr         23         3         45         tr         3           c coze         1         tr         tr         40         3         50         5         2         rr           c coze         tr         tr         tr         40         3         50         5         2           c coze         tr         tr         tr         25         5         69         1         5         tr           c coze         tr         tr         tr         25         5         69         1         5         tr           c coze         1         tr         28         3         65         tr         3         tr           c coze         1         tr         23         3         65         tr         tr           c coze         2         2         2         1         6         tr           c coze         1         tr         43         3         45         tr         tr           c coze         1         43         3         45         1         7         tr           c coze         1         43         45<		calc silic oote		-	t,	84	м	07		Ħ	2	3	Ħ	2
c coze         tr         c coze         2         42         5         43         45         tr         tr         tr         c coze         3         45         1         3         tr         tr         tr	c ooze         tr         c ooze         1         4         3         45         45         45         tr         tr         tr         c ooze         1         4         3         45         45         1 <t< td=""><td></td><td>1</td><td>-</td><td>25</td><td>1</td><td>23</td><td>6</td><td>45</td><td></td><td>1</td><td>6</td><td></td><td></td><td></td></t<>		1	-	25	1	23	6	45		1	6			
c ooze         tr         tr         tr         tr         tr         tr         tr         tr         tr         degrada (a)         degrada (b)         degrada (c)	c ooze         tr         c oze         2         4         4         2         4         2         4         2         4         2         4         2         4         2         4         2         4	40 CB	calc ooze	-	1		23		65		-	9	1		~
cooze         tr         c oze         2         4         2         5         4         5         tr         tr         tr         tr         c oze         3         4         3         4         5         tr <td>cooze         tr         c ooze         2         42         5         45         tr         tr         tr         tr         tr         tr         c ooze         1         43         3         45         1         &lt;</td> <td>48 сш</td> <td>calc ooze</td> <td>7</td> <td>11</td> <td></td> <td>07</td> <td>3</td> <td>20</td> <td></td> <td>2</td> <td>7</td> <td></td> <td></td> <td>5</td>	cooze         tr         c ooze         2         42         5         45         tr         tr         tr         tr         tr         tr         c ooze         1         43         3         45         1         <	48 сш	calc ooze	7	11		07	3	20		2	7			5
calc clay         1         72         2         20         3         2           c coze         1         tr         28         3         65         tr         3         tr           c coze         1         tr         23         3         65         tr         3         tr           c coze         1         tr         15         2         75         1         6         tr           c coze         2         42         5         45         tr         6         tr           c coze         1         43         3         45         1         7         tr           c coze         1         43         3         45         1         7         tr           c coze         1         43         3         45         1         7         tr           c sos         1         43         3         45         1         7         tr           oss         1         90         1         1         1         1         1           y/m micros         5         35         60         tr         tr         tr	c occe         1         72         2         20         3         2           c occe         1         tr         28         3         65         tr         3         tr           c occe         1         tr         23         3         65         tr         3         tr           c occe         1         tr         15         2         75         1         6         tr           c occe         2         2         6         60         1         8         tr           c occe         1         43         45         5         45         tr         tr           c occe         1         43         45         1         7         tr           c occe         1         43         45         1         7         tr           c occe         1         43         45         1         7         tr          oss clay         10         90         tr         tr         tr          oss clay         6         5         89         tr	90 cm	calc ooze	1	5		25	5	69		-	5	ä		E
alc coze         1         tr         28         3         65         tr         3         tr           alc coze         1         tr         23         3         65         1         6         tr           nno coze         2         15         2         75         1         6         tr           alc coze         2         42         5         45         tr         6         tr           alc coze         1         43         3         45         1         7         tr           alcosa clay         10         90         tr         tr         tr         tr           ndfoss clay         6         5         35         60         tr         tr         tr	alc coze         1         tr         28         3         65         tr         3         tr           alc coze         1         tr         23         3         65         1         6         tr           nun coze         2         1         2         75         1         6         tr           alc coze         2         42         5         45         tr         6         rr           alc coze         1         42         5         45         1         7         tr           alc coze         1         42         5         45         1         7         tr           alc coze         1         42         5         45         1         7         tr           alc coze         1         42         5         45         1         7         tr           alc coze         1         43         3         45         1         7         tr           alc coze         1         43         3         45         1         7         tr           alc coze         1         4         4         4         4         4         4         4	ive inclu		1			72	2	20		6	7			
lc coze         1         tr         23         3         65         1         6         tr           nmo coze         1         tr         15         2         75         1         6         tr           alc coze         2         6         60         1         8         tr         r           alc coze         1         42         5         45         tr         6         r           alc coze         1         42         5         45         1         7         tr           nfoss clay         10         88         tr         tr         tr         tr           nfoss clay         0         2         1         tr         tr         tr           nfoss clay         6         5         89         tr         tr         tr		175 cm	calc ooze	-			28	6	65		Ħ	6	Ħ		2
alc coze         1         tr         15         2         75         1         6         tr           alc coze         2         42         5         45         1         8         tr           alc coze         1         42         5         45         1         7         tr           alc coze         1         43         3         45         1         7         tr           alc coze         1         88         tr         tr         tr         tr           unfoss clay         10         90         tr         tr         tr           alg/Hm micro         5         35         60         tr         tr         tr           nfoss clay         6         5         89         tr         tr	alc coze         1         tr         15         2         75         1         6         tr           alc coze         2         22         6         60         1         8         tr           alc coze         1         42         5         45         tr         6         n           alc coze         1         43         3         45         1         7         tr           alcoss clay         10         88         tn         tr         tr         tr           all plants         90         tr         tr         tr         tr           all plants         5         35         60         tr         tr         tr           all coss clay         6         5         89         tr         tr	200 cm	calc ooze	1	2		23	<u>س</u>	65		-	9	Ħ		-
Can calc core         2         2         6         60         1         8         tr           Can calc core         2         42         5         45         tr         6           can unfoss clay         12         88         tr         tr         tr           can unfoss clay         10         90         tr         tr         tr           5 can clay/An micro         5         35         60         tr         tr         tr           5 can unfoss clay         6         5         89         tr         tr	Can calc core         2         22         6         60         1         8         tr           Can calc core         2         42         5         45         tr         6         tr         fr         6         tr         fr         6         fr	215 cm	ouu	1	7		15	2	75		-	٥	Ħ		5
cm         calc oore         2         42         5         45         tr         6           cm         calc oore         1         43         3         45         1         7         tr           cm         unfoss clay         12         88         tn         tr         tr         tr           flecks         unfoss clay         10         90         tr         tr         tr           cm         clay/thm micro         5         35         60         tr         tr           cm         unfoss clay         6         5         89         tr	cm         calc oore         2         42         5         45         tr         6           cm         calc oore         1         43         3         45         1         7         tr           cm         unfoss clay         12         88         tr         tr         tr         tr           Flecks         unfoss clay         10         90         tr         tr         tr           cm         clay/Atm micro         5         35         60         tr         tr           cm         unfoss clay         6         5         89         tr	300 cm		2			22	9	09		-	æ	Ħ		-
7 cm         unfoss clay         12         88         tr         tr           5 cm         unfoss clay         12         88         tr         tr           5 cm         unfoss clay         10         90         tr         tr         tr           Flecks         unfoss         5         35         60         tr         tr         tr           5 cm         unfoss clay         6         5         89         tr         tr	cm         calc coze         1         43         3         45         1         7         tr           r         r         r         r         r         r         r         r         r           r         r         r         r         r         r         r         r         r           r         r         r         r         r         r         r         r           r         r         r         r         r         r         r         r           r         r         r         r         r         r         r         r           r         r         r         r         r         r         r           r         r         r         r         r         r         r           r         r         r         r         r         r         r           r         r         r         r         r         r         r           r         r         r         r         r         r         r         r           r         r         r         r         r         r         r         r	350 cm	calc ooze	2			42	2	45		Ħ	9			2
cm         unfoss clay         12         88         tn           cm         unfoss clay         10         90         tr         tr           flecks         unfoss         33         60         tr         tr           cm         clay/An micro         5         33         60         tr           cm         unfoss clay         6         5         89         89	cm unfoss clay         12         88         tp           fmeds unfoss clay         10         90         tr         tr           fmeds unfoss clay         5         35         60         tr           cm clay/km micro         5         35         60         tr           cm unfoss clay         6         5         89	354 cm	calc ooze	-			43	m	45		-	1	Ħ		D
Flecks unfoss clay   10   90   tr   tr	Communication   Communicatio	357 cm	unfoss clay	12			88		th			Ħ			
	Hacks unfoss clay 6 5 89 tr	365 cm	unfoss clay	10			06		ä		Ħ	ä			
cm unfoss clay 6 5 89	cm unfoss clay 6 5 89		ks unfoss clay/Mn micro	2	35		09		ä			Ħ			
		5	unfoss clay	9	5		68					Ħ			

Page 1 of 1

266 VISUAL CORE DESCRIPTION

Biogenous Material
Calcareous Siliceo Rediolaria Smoterd ä ~ Ofhers t Total Core Length 321 Discoasters ESTIMATED ABUNDANCES (%) pteropods Core No. 20 PC Station No. 27 45 1 tı ä sffssofonnsN = FOTEINS 76 94 66 Clay 68 92 Inorganic Material Silt & Sand Volcanic ä Zeolites tr Mi cronodul es ~ 2 9 Detrital grains 7 7 Expedition 115 1 cm unfoss clay 20 cm unfoss clay 200 cm unfoss clay unfoss clay SEDIMENT Chain 6 cm calc ooze TYPE Ship: Leg No. 320 cm LEVEL

endylan

2

380

790

loys 4,b brown
loys 4,b brown
loys 4,b brown
abund. faint black splotches and flecks
firm slick lutite
years
WROSS CLAY
UNROSS CLAY
lows 4,4 dark yellowish brown
very homogeneous throughout
firm slick lutite
flow in suspected 35-321 cm
NOTE: core did not trip properly, corer eased into mud,
then appeared to trip upon pullout.
end of core. Ship CHAIN Cruise 115 Leg 2 Sta. 27 Core No. 20FC.
Total Length 321 cm. Lat. 25 024's Long 07'4738'E Depth 4738 mv
Core condition EKCEKLENI Date Described 264818 % by 154414.
Physiographic location CARE BASIN NEAR WHLMS RIDGE. UNPOSS CLAY
10TR 4/3 brown
excensive pale brown marbling and black flecks
firm slick lutite CALC OOZE

1078 6/3 pale brown
slight very pale brown marbling throughout
moist slightly silty lutite with abund. forams
8-35 Detailed Description NETRONE TO TO Lithologic

00

sabuods

VISUAL CORE DESCRIPTION

Page 1 of 1

Ship CHANN Cruise 115 Leg 2 Sta. 27 Core No. 20FG.
Total Length 107 cm. Lat. 25°02.4'S Long. 07°4738'E Depth 4738.But.
Core condition EXIEUCENI Date Described 2448.15 by 1844.
Physiographic location CARE BASIN NEAR WALVIS ROBE.

Tannan Ta Lithologic

CALC OOZE
10YR 6/3 pale brown grades to 6/4 light yellowish brown
extensive very pale brown mottling throughout
moist at ailty lutite
6 mottled
35-107

UNFOSS CLAY WITH MOTILING ZONES OF CALC COZE
10TH 5/3 brown
10TH 5/3 brown
common 75-92 cm
firm silenter lutter with scattered forams and black flecks
end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

20-PG Station No. 27 Core No. 115 Ship: Chain Expedition

Total Core Length 107

EO

			LEVEL	1 cm	50 cm	106 cm		
			SEDIMENT TYPE	calc ooze	unfoss clay	unfoss clay		
	Inoi		Detrital Snimy	7	4	2		
	qani	114	Mi cronodul es	7	1	7		
	Inorganic Material	Silt & Sand	zej i foeZ					
EST	erial	P	Volcanic shards					
TAMI			Clay	7,	88	16		
D AB			2m6107	9				
ESTIMATED ABUNDANCES (%)	8	Cal	2112207onnsN	07				
ES (	oden	Calcareous	Pteropods					
(¥	Biogenous Material	S	Discoasters	-				
	ater		27 <b>9</b> 410	2				
	iel	Sil	2mode f O	-				
		Siliceous	Radiolaria	5				

sabuods -

Leg No. 2

568

e Turnt

and of core

REIGNAME

100

VISUAL CORE DESCRIPTION Poge 2 of 4	Ship CHAIN Cruise 115 Leg 2 Sto 29 Core No. 239C.  Lithologic Detailed Description  Space Shadowy pale brown mottles found s1 throughout very firm plastic luttle with increasing foram content has sharp horizontal contact with 1 cm foram sand has the antitle basal contact weathered reddish and black detrital grains found 189-233 commonly in foram sand (ALLO 2012) 189-233 commonly in foram sand (ALLO 2012) 189-233 brown and 3/3 brown	extensive intermottling of two colors above plus a zone 193-200 cm oi extensive withte mottling of two colors above plus a zone 193-200 cm oi extensive withte mottling in 200-200 cm oi extensive withte mottling blue a graducture of common at top and very abund.  S mottled a some where forans are common at top and very abund.  S mottled a some where forans are common at top and very abund.  S mottled a some where forans are common at top and very abund.  S mottled a some where forans are common at top and very abund.  S mottled a some where forans are common at top and very abund.  S mottled a some where forans are common at top and very abund.  S mottled a some where forans are common at top and very abund.  S mottled a some where forans are common white mottling grades to extensive mosts lumpy luttee with a few forans	WANNO OCEE  1078 8/1 white common light yellowish brown mottling throughout firm plastic lutite with a few forms  1078 8/1 white common light yellowish brown mottling throughout common light yellowish brown mottling throughout mearly sand southed south of the brown mottling throughout south of the brown mottling throughout south of the brown mottling grades to sI scattered forms  1078 6/4 light yellowish brown southing throughout south of the brown mottling grades to sI scattered forms  1078 6/4 light yellowish brown statered forms  1078 6/4 light yellowish brown mottling 370-384 cm mottles statered bedding of forms and fragments 347-352 cm mottles statered bedding the world before white form-rich mottling 370-384 cm mottles
VISUAL CORE DESCRIPTION Page 1 of 4	Ship CHAIN Cruise 115 Leg 2 Sto. 22 Core No. 237C  Total Length 877 cm. Lat 25.03.11% Long. 11.512/E Depth 4192.ex.matrs  Core condition Exick.Ed.IT Date Described 3MMR.75 by Exact.  Physiographic location Late MML.019 No. 10 Post Core Condition  Color Core Condition  Color Option Detailed Description  Color Core CRADES TO NAINO GOZE  Inthologic  Color Option Structure of the Core CRADES TO NAINO GOZE  Inthologic  Color Option Structure of the Color and very fan in 119th gray structure of the Color of Structure of the Color of Structure of Colo	UNPOSS CLAY/ZEOLITES  10TR 4/4 deark yellowish brown actensive intermarbling, 132-137, of light yellowish brown and 7.38 'My brown, itscurally distinct sediments moist lumpy luttle with a few scattered forms, intermot- tled zone has portions with abund. forms and others of slick luttle NAWNO OZE 137-139 NAWNO OZE 10TR 8/1 white TWO large pale brown mottles found with unit slity moist luttle with very abund. forms  3. Hy moist luttle with very abund. forms  139-148 139-148 139-148 139-148 130-148 130-148 130-148 140-148 1	moist si silty lutte with scattered forams and black fleets  (a) Capteled  148-155  NARNO 002E  1078 8/1 white with scattered forams  (a) Capteled  155-169  (b) Capteled  155-18  NARNO 002E  1078 8/1 white with scattered forams  (c) Capteled  (c) Capteled  (c) Capteled  (c) Capteled  (d) Capteled  (e) Capteled  (e) Capteled  (e) Capteled  (e) Capteled  (e) Capteled  (f) Captele

10VR 4/4 dark brown al faint light yellowish brown mottling moust firm intite with scattered forams could be disturbed or flow in during late pullout, upper contact does not seem likely. 10TR 10 well graded foram-det, sand; coarse to fine numerous dark red and black det, grains mixed throughout CALC OOZE
10RR 8/1 white
2 concentrate graded forem-det, sand exactly as above numerous dark red and black det.grains mixed throughout very S, H 107R 8/1 white very stiff plastic lutite with abund. forams and black fleck in the interval 834-846 cm. 276 Page 4 of 4 Core No. Detailed Description 53 Sta Leg 2 S, textural 800-853 NANNO OOZE CALC DOZE VISUAL CORE DESCRIPTION CALC GOZE 861-87 CHAIN Cruise 115 Lithologic Ship -CALC GOZE (WHITE ZONES) AND SL CALC CLAY (DARK BROWN ZONES)
10TR 4/3 dark brown and 8/1 white
alternating bands of fairly homogeneous brown lutite and
atternating bands of fairly homogeneous brown lutite and
pale brown and light yellowish brown
firm compact lutite with varying foram content, most abund.
464-444 cm, 469-502 cm
11ghter zones 437-450 cm, 466-473 cm, 485-502 cm, 524-530 NAMNO GOZE

10YR 8/1 white

10 moist silty lutite with abund. forams and black det, grains very  ${\bf S}$ 10KR 7/4 very pale brown very extensive small white and yellowish brown mottling firm al slity lutite; foram content increase with depth from scattered to ahund. firm compact lutite with a few forams void 717-721 cm, somewhat graded bedding of forams and black flecks 770-775 cm 10XR 5/4 bm wn grades to 6/4 light yellowish brown to 7/4 very pale brown extensive intermottling of colors above 715-735 cm, firm compact sl silty lutite with scattered forans S mottled 10YR 6/4 light yellowish brown extensive large white and very pale brown mottles throughout 2380 Poge 3 of 4 Core No. Detailed Description Leg 2 Sto 29 CALC OOZE 10YR 4/4 dark brown sl thereafter VISUAL CORE DESCRIPTION G mottled CALC OOZE 15 Cruise Ship CHAIN Lithologic

## SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 2

VISUAL CORE DESCRIPTION

5	Lot 11'04'5 Long 14" 41.3'E Depth Cape Basin	Detailed Description	I tohe gray SV S/1 to SV S/2 olive page with more chalse to	between Variance of the state o	scattered to common, this burnowing probably has resulted	in the mottled appearance of the unit which at one time may have consisted of many smaller, visually distinct	lithologies somewhat slick fairly silty lutite occasional fuzzy near-horizontal, thin laminations usually occasional fuzzy near-horizontal, thin laminations usually greenish; top 3 cm are brown and appear slightly washed GALC SILIC 002E	51 5/2 oilve gray to 4/2 at 518 cm scattered to common motifing throughout major colors	Somewhat Sirk fairly sirty intite Sirregular	CALC SILIC OOZE WITH DETRITUS	olive common mottline throughout of the major colour definite	common macrining intrograms of the major colors, definite signs of bioturbation in places unit may in reality be composite of many small units of	differing lithologies that have since been partially homogenized thru bioturbation	9 240	CALC SILIC OOZE 5Y 7/1 light gray	faint mottling only throughout of gray somewhat slick fairly silty lutite	very homogeneous appearing unit with little indication of bioturbation	0 740-779	CALC SILIC OOZE 5Y 5/2 olive grav	occasional motiles olive gray fairly slick firm silty lutte	1/2 cm diameter basalt pebble at 769 cm S irregular	779-1176 CALC SILIC 002E	5Y 7/1 light gray, 5/2 olive gray and intermediate shades variable density, from scattered to common mottling of	major colors  general lightening and darkening of unit color about 6 times common motified Churtowing harasan than Afficeant colors	areas, occasional homogeneous areas as well 1161-1176
Ship CHAN Cruise	1423	Lithologic	Plubere 1 2 2 1	4	-	a   a   E	1 1 1		₹: - 1	4 3	+ + + + + + + + + + + + + + + + + + +	4	4 + 3 + 6 + 5	3 +	4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	45	4	+ + + + - - -	- - - - -	**************************************	<b>8</b>	اسا	4	4 4
			E		iel	Siliceous	Diatoms Radiolas Sponges																		
			877		Biggenous Material	-	Discoasters Others	9	3		ţ	3 2	7 tr	5 2	tr tr	1	4 2	2 5	4	7 tr	6 2		+		
ORES		1	80	ES (%)	nouabo	Calcareous	Pteropods			-					+		1		1	+		+	+	+	1
MENT CORES	23 PC	59	gth	NDANCE	Big	Calc	s lissotonn <b>s</b> M	57	81	5	30	35	85	20	2	80	30	50	25	70	25				
SEDIM		1	e	180			2m6107	30	9		09	b	-	-		-	2	15	09	-	2				
		0	بو ـ	0						1		-			1	0	58	9		21	09				
0.1.	8	ion No	1 Core L	IMATED /			Clay	16	10	79	2	55	1	42	87	10	5	26	9	2	9				
₩.H.0.1.	Core No.	Station No.	Total Core Length	ESTIMATED ABUNDANCES (%)	rial		Volcanic shands Clay		10	1 64	2	55	7	42	80	-	1 5	tr 2	3	2	9		+		
ONS - W.H.O.I.	Core No.	Station No	Total Core L	ESTIMATED /	Material	Sand	spaeus		10	-	2	55	7	42	80	-	-		3	2	9				
RIPTIONS - W.H.O.I.	Core No.	Station No	Total Core L	ESTIMATED	ganic Material	ilt & Sand	olneoloV sbaeds		10	1	5	2 55	7	47	5	1	-		5	tr 2	9				
E DESCRIPTIONS - W.H.O.I.	Core No.	Station No	Total Core L	ESTIMATED	Inorganic Material	Silt & Sand	Zeolites Volcanic Shands	tr	10	30 1			7	tr 42			1	נ		i,					
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDI	Ship: Chain Core No.	Expedition 115 Station No	Leg No. 2 Total Core L	ESTIMATED /	Inorganic Material	Silt & Sand	grains Micronodules Zeolites Volcanic Shards	tr		3 30 1	5	2	nauno ooze		5	-	1 1	1	5		7				

Page 2 of 2

VISUAL CORE DESCRIPTION

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

ш -	xped	6	1			Stat	Station No.	9	35		, ;				
	eg no	,				EST	Iotal Core Length ESTIMATED ABUNDA	D AB	otal Core Length 11 ESTIMATED ABUNDANCES (%)	ES	(%		5		
Δ >			Inc	Silt	Inorganic Material Silt & Sand	erial			Calc	Biogenou	Biogenous Material	ateri	Sili	Siliceous	0
LEVEL LEVEL	Æ	SEDIMENT	Detrital grains	Micronodules	səşiloəz	Volcanic sbaseds	Clay	2m6107	sfizzotonnsN	Pteropods	Discoasters	Others	SmotsiQ	sinslotbeA	Spondes
	I cm	calc silic oome	4	-		1	22	25	30			5	00		4
100	100 сш	calc silic oote	,e 7	#		2	30	25	15		Ħ	5	1	1	9
200	200 cm	silic ooze	10	~		3	36	15	20			3	4	-	9
300	300 cm	silic ooze	9	1		1	04	15	11		#	7	9	-	7
707	по 004	calc silic ooze with det	20			-	35	15	15			2	6	-	0
200	500 cm	silic ooze	15	7		ä	20	18	×			5	-	1	9
009	E O	calc silic ooze with det	20	7			23	15	20		ä	2	00	ä	00
700	O CE	calc silic ooze	10	#			25	20	30			2	5		2
800	0 0	calc silic ooze	7	t,			07	10	22			2	10		2
306	то 006	silic ooze	10	#		2	27	20	2		נ	2	10	Ħ	0
1000	1000 сп	calc silic ooze	7	1		Ħ	25	10	25		ä	2	15	-	10
1100	E 0	calc silic ooze	80	#		ä	36	15	20			2	00	ä	7
1160	60 сп	calc silic ooze	5	7			22	15	07			2	œ		2
-	-					-	-		-	-	-	-	-		

_ Leg 4_ Sta. 32_ Core No. 24 PC	Detailed Description
Ship CHAIM Cruise 115	Linologic Log 10 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 1 1

VISUAL CORE DESCRIPTION

Page 1 of 1

Ship CHAIM Cruise 115 Leg 4 Sta 32 Core No 24 PG.
Total Length 146 cm. Lat 41º01.9'S Long 14º 413'E Depth 4347 sans m
Core condition EXCELLENT
Physiographic location Cape Bearing

CALC SILIC OOZE
7% 6/2 Hight olive gray
olive gray
olive gray intolling throughout, lum to 2 cm across, gray and
olive gray time slity lutite
S horizontal Detailed Description 81-19 0-61 Per Buene Lithologic L09

CALC SILIC OOZE
10TR 7/2 14pt r gray and 5/3 brown
scattered mottling throughout of two major colors
smooth, firm silty lutite
horizontal interlaminations of the two major colors and
related shades 9 4

CAE SILIC 002E

N 5/3 oilve, 7/1 light gray and related shades occasions mottles throughout of major colors smooth, firm silty lutte many thin horizontal interlaminations of major colors throughout end of core 78-146

TON OF CORE; HILE

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Pertrene

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

1 cm   SEDIMENT   SE	Expedition	ition 115	1			Sta	Station No.	No.	32		1				
SEDIMENTED ABMONACES (#)   SEDIMENTED ABMONACES (#)   SEDIMENTED ABMONACES (#)   STATE OF SEDIMENTED	Leg N					Tot	al Co	re Le	ngth	1	971		5	_	
10   10   10   10   10   10   10   10						ESJ	TIMAT	ED AB	UNDAN	CES	(*)				
SEDIMENT  SEDIME			Ino	rgani	c Mat	erial			8	ioge	S	ater	lei		
# # # # # # # # # # # # # # # # # # #				Silt	& San	P			S	Care	Sno		Sil	icec	
Calc coze 8 1 1 40 4 20 tr 10 7  Calc coze 5 1 tr 7 48 10 15 10 3  Calc coze 7 1 tr 48 10 15 10 3  Calc calc coze 5 tr tr 48 10 15 10 3  Calc calc coze 5 tr tr 48 10 15 10 3	LEVEL	SEDIMENT			Zeoli tes		Clay	Porams	sffssofonnsv	pteropods	2793 26032 to	sneht0	2mot 6 f Q	Radiolaria	
Calc coze 5 1 tr 35 20 15 15 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		calc silic ooze	80	-		-	07		20		נג	01	,		
Califocoze 7 1 tr 48 10 15 10 3 califocoze 5 tr tr 48 10 15 10 3 salifocoze 5 tr tr 48 10 15 10 3		calc ooze	2	-		Ħ	35					15	2		
Calc Calc Calc Calc Calc Calc Calc Calc	90 сп	calc silic ooze	7	-		1	87					10	6	5	
	145 cm	calc	5	1		1	87					10	~		

VISUAL CORE DESCRIPTION

Page 1 of 1

Ship CHAIN Cruise 115 Leg 4 Sta 34 Core No 25FC.
Total Length 141 cm. Lat 51.00.012 Long 65/1926 Depth 37869.

Core condition Exterded/Districted.

Physiographic location NUTHENT OF TRIPE INCTION.

Lithologic

Prythethe

Detailed Description

Piston core pretripped but was nonetheless lowered to the seafloor, in an attempt to secure a gravity core sample. As a result of the pretrip, however, the core cutter, extener and bottom two sections of liner were lost (retaining screws having sheared); thus this sediment (25PC) had to be extruded from the stainless core pipe. It is habily disturbed and unstratified and represents no better than a surface sediment grab sample. Note: 0-7 41 POCKET REMOVED 4

12 1

Water pocket removed after core had settled, (liner also shortened by  $7\ \mathrm{cm})$ 

SILIC CALC 002E
2.57 7/2 light gray grades to 6/2 light brownish gray unstratified swiring and marbling of above colors in the zone 40-70 cm with some olive and dark gray hues very moist uncomsolidated siliceous, sponge-like lutite becoming very silry at 60 cm as a result of numerous pumice and ash fragments end of core 7-141

4 4 1

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4 4 4.1

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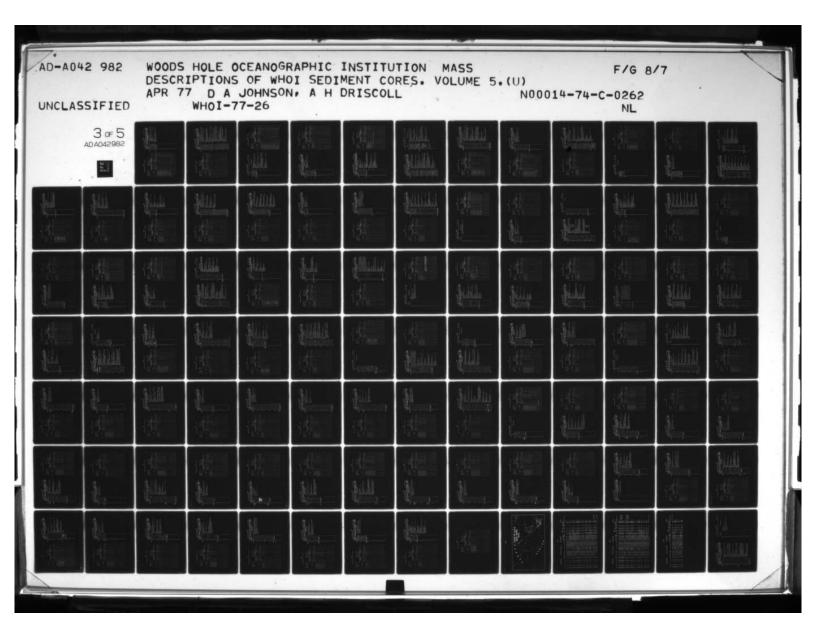
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

25 PC K Station No. \_ Core No. Expedition 115 Ship: Chain

141 Total Core Length

Leg No.

00 S 2 sabuode Biogenous Material
Calcareous Siliceous Statiolaria 67 09 62 Diatoms STA STA 4 2 Discoasters ESTIMATED ABUNDANCES (X) Pteropods 2 STISSOTONNEN 5 80 FORSE 10 12 10 Clay Volcanic Inorganic Material Silt & Sand 1 9 Sellfes 29 [ubonoto iM grains Detrital 3 2 silic ooze calc ooze calc ooze SEDIMENT TYPE silic 75 сп 140 cm 10 сш LEVEL



. SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

VISUAL CORE DESCRIPTION

	691 cm diatom coze       tr       73       4       6       3         800 cm diatom coze       7       5       tr       77       3       4       3         900 cm diatom coze       rr       7       5       tr       77       4       5       2         1000 cm diatom coze       tr       1       1       1       6       5       1         1100 cm silic coze       tr       8       10       2       70       2       6       2         1189 cm silic coze       r       8       18       tr       3       58       4       5       2
--	--

Poge 1 of 2

VISUAL CORE DESCRIPTION

10 3	Detailed Description	C COZE AND BACK TO DI	of 6/3 pare office and 5/3 office extensive complete intermottling and marbling of the	two colors above moved that a successful model to a state of the model of the second model of the second model of the second second model of the second seco	mouse, generally uncompositioned sponge-like biliceous mulch article occasional pockets of ash and punice fragments 0-80 cm very soupy		DIATOM GOZE 5Y 7/3 pale yellow grades to 2.5Y 7/4 pale yellow	common very large spherical pale olive mottles throughout and a few concave upwards light gray laminations	moist firmer sponge-like silic mulch S concave upward	DIATON OOZE	2.5Y 6/2 light brownish gray slight faint pale yellow marbling and .5 cm-lcm laminations	(concave up)	Grarbelled		DIATOR COLE GRADES TO SILIC COLE 2.5Y 5/2 grayish brown grades slowly to 4/2 dark grayish	brown occasional offue fight oray and dark orayleh brown	marbling and mottling	relatively stiff compact lutite with varying ash and pumice	(880-920 св)	large sharp irregular 3cm x 5 cm pumice fragment (ice rafted)	very S	SILIC OOZE WITH LAMINATIONS OF DIATOM OOZE	2.57 6/2 light brownish gray	repeated and quite distinct laminations 1-1.5 cm wide of rieidly bonded silic material courting in touch beds	throughout the unit, generally white 922-965, pale yellow	965-987 cm background matrix between beds is moist unconsolidated	lutite with scattered ash and pumice fragments	S Horizontal 12	DIATOH OOZE	slight light brownish gray marbling throughout	moist silty lutite with abund. ashipumice fragments	G mottled
Ship CHAIN Cruise 1157 Total Length 11357 cm. Lat. Core condition Exception WESTE	., o Log 0-422	40	346	10	443	422-56	46 34	101	64 64	1 2 4 4	da da	140	3	- Le03-92	4.		ا ا ا	4 4 4	L	1 4		186-776	1 2.5	14, 4,	٦	44	44	887-1012	114	4, ,,4	1 0 4	١٠٠٠
Core No. 26 PG	19	Call	ESTIMATED ABUNDANCES (%)	Biogenous Material	Calcareous	sfi sn	smsy sones sone s sones sone s sones s sones sones sones sones sones sones son	-	3 4 83 2 5	2 80 1 5 2	, , , ,											•										
Chein		Leg No.		Inorganic Material	STIT & Sand	suj	podu 168	ints( onoth if(se)	Z	follow address more day	100																					

Page 1 of 2 Core No. 21FC

VISUAL CORE DESCRIPTION

\_ Leg 4 Sta. 36

115

Ship CHAIN Cruise

Pleistacone

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E

Total Core Length 1135

Station No. 36 Core No.

27 PC

Expedition 115 Leg No. Ship: SILIC 002E
2.5% 4/2 dark grayish brown and N 2.5/ black
moist lutice with very abund. ash and pumice fragments grades
5 horizontal 1012-1034
SILIC GOZE
SILIC OZE
2.78 6/2 light brownish gray
cocasional fine grayish brown laminations and a few mottles
of the same hue
most slightly slity lutite with ash and pumice only in
mottles
1034-1043
S Horizontal 2.57 6/2 light brownish gray grades to 5/2 grayish brown extensive intermathelling of colors above plus some light gray silic multh scattered in taxturally uncontinuous combination of moist lutite, spongetike mulch and ash-pumice fragments 1100-1135
SILIC GORE
SILIC GORE
A few large gray mottles 1100-1115 cm
very motst sponge-like silic mulch with scattered ash and
pumice in mottles
end of core Detailed Description SILIC OOZE AND ASH 1043-1100 Lithologic Log

		Ino	rgan	Inorganic Mate	T	2	al Biogenou	B	Biggenous	S	Material	6		
			Silt	8 San	D			Cal	Calcareous			Sil	Siliceous	S
	SEDIMENT TYPE	Detrital anterp	Micronodules	2eol1tes	Volcanic shards	Clay	2m6707	2[t220]onn&N	Pteropods	Discoasters	others	2mo1s i O	Strafotbas	Spondes
	diatom ooze	tr				Ħ					3	88	ä	•
	silic calc oote	tt.				3	4	3			4	80	-	2
1	distom ooze	tt.					2				3	89	7	0
	diatom ooze					5					2	90	נ	15
	diatom ooze					Ħ					-	16	-	4
	diatom ooze					Ħ					4	85	2	9
	diatom ooze						2	T.			3	2	-	m
600 cm	diatom ooze				∞	œ					4	72	2	6
700 сш	silic ooze	2			10	25					3	56	6	ä
	silic ooze	12			<b>∞</b>	18					2	55	2	-
900 сш	silic ooze	10			æ	15					2	59	2	7
5	silic ooze	8				20					-	89	2	-
5	silic ooze	4				16					2	76	-	-
8	diatom ooze					10						89	tt	~
1030 сш	silic ooze	2				30					2	09		
1044 cm	ash	2			75	2					Ħ	14		
1100 cm	diatom ooze	1			٥	20					~	79	4	2
1134 cm	21110 0000	,									,	-		

Ship CHAIN Cruise 115 Leg 4 Sto. 36 Core No. 27PC.

Total Length 91 cm. Lat. 54° 42.1'S. Long 92° 051" Depth 3140 m.ar.

Core condition EXELLENT Date Described 14 pc. 75 by Brack.

Physiographic location WESTERN FLANK... MIDATLANTIC NIDEE

Lithologic VISUAL CORE DESCRIPTION Log

DLATCH COZE

5Y 6/3 pale olive and 5/3 olive
extensive and complete intermottling and marbling of the
two colors above
Very moist unconsolidated sponge-like silic mulch
end of core Detailed Description 16-0

291

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

27 PG

Station No. 36 Core No.

Expedition 115 Ship: Chain

ESTIMATED ABUNDANCES (%)	Biggenous Material	Calcareous	Freewars 1 s											1	_
TIMATE			Clay	2	\$						П				
T I	Materia	Silt & Sand	Zeolites Volcanic Shards			++	-	++		+		+		+	
	organic	Silt &	Micronodules								П			1	
	Inc		Setrita) Salang	5	5										
			SEDIMENT	diatom ooze	diatom ooze										
	_		TEVEL	1 0	В 06	+	+	+	+		1	+	+	+	_

Page Lof L

Ship CHAIN Cruise 115 Leg 4 Sta. 43 Core No. 32 GC.
Total Length 1/43 cm. Lat 54º 35.55 Long 20° 048 & Depth 1240 Core no Core condition EXCELENT Date Described 16.71m275 by R HS GIRR Physiographic location Spiess Ridge, Slightly East at Central Anomaly Tright Junct un 292 VISUAL CORE DESCRIPTION

5Y 4/3 olive sandy sliry, spongy, lutite material small black specks throughout G appears washed Detailed Description SILIC OOZE 6-0 4 4 4 Lithologic 4 2 Perstace 12

DIATOH OOZE 5Y 6/3 pale olive and 6/4 moist, spongy lutite G 19-6 4> 409

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4

67-104 ROTTON OF CORE: 143 cm

SILIC OOZE/VOLCANICS
N2.5/ black
sandy, sponsy lutte
probable Afsturbance of unit due to spin magnetometer work,
unit apparently has reserted horizontally with heavier
grains towards the liber and filmer material on the inside
pumice chunk I cm x 2 cm at 99 cm
Sirregular
104-126

2.5X 8/4 pale yellow frim, moist spongy lutte faint, slightly concave up laminations throughout, some contamination with upper unit 104-109 cm DIATOM OOZE

5Y 6/3 pale olive and 6/4 several large inclusions of black sand, possibly washed and not atractigraphically meaningful firm, noist spongy luttle l sample taken at 139 cm unit possibly disturbed due to spin SILIC COZE/VOLCANICS 126-143

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. Station No. Expedition 115 Ship: Chain

32 GC 43 Total Core Length 143

Leg No.

E

5 7 3 9 sabuods Biogenous Material
Calcareous ~ Radiolaria 25 9 80 90 Diatoms 2 7 ST9410 Discossters ESTIMATED ABUNDANCES (X) pteropods sffssofonneN F Forams Clay 6 9 9 2 Spands Inorganic Material Silt & Sand 1 2 œ Sealfloez Micronodules Detrital grains 55\* 3 ooze/volcanic diatom ooze distom ooze SEDIMENT 1 cm silic ooze TYPE 40 cm 100 cm 123 cm LEVEL

ä

39

7

2

20

30

ooze/volcanics

142 cm

\* probably wolcanic in drigin, glassy around edge

3 겉 d

द १व

Pleusbiene

3

. 2m

S irreular

end of core

magnetometer

00

3

8

DIATOM GOZE WITH LAMINATIONS OF ASH WITH DETRITUS 5Y 5/2 olive gray two zones of gray and dark gray ash Laminations 479-517 cm, 586-520 cm, very homogeneous in the zone 517-556 cm extremely stiff compact luttle with a number of thin graded ash beds throughout; plus one very distinct dry coarse graded bed at unit contact SILIC 002E WITH ASH AND DETRITUS 5Y 3/1 very dark gray very fine dry volcanic ash grades to a bit coarser pumice-DIATOR OOZE
5% 6/2 olive gray
innumerable complete and incomplete pale yellow and white
laminations throughout
remarkably stiff compact nearly dry, brittle lutite numerous thin and thick pale yellow and olive gray silic and ash laminations; distinct and horizontal very stiff highly consolidated lutite S. horizontal 346 SY 6/3 pale olive grades to 5/2 olive gray a few faint gray thin laminae scattered throughout very stiff consolidated, nearly dry compact lutite 4.09-443 SILIC OGZE WITH LAMINATIONS OF DETRITUS WITH ASH 2.567 5/2 Poge 2 of 2 Core No. Detailed Description 4 Leg 4 Sta like bed graded bedding very S horizontal VISUAL CORE DESCRIPTION FLOW IN SILIC OOZE 685-861 = 5 443-467 620-685 Cruise 1 44444 { , } { , } {

SHEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

297

1 cm silic ooze   8   100 cm diatom ooze   2   200 cm diatom ooze   2   200 cm silic ooze   8   215 cm silic ooze   31 silic coze   31 silic coze   30   390 cm diatom ooze   10   425 cm silic ooze   10   425 cm silic ooze   10   415 cm diatom ooze   15   525 cm diatom ooze   16   650 cm diatom ooze   17   650 cm diatom ooze   18   650 cm diatom ooze   17   650 cm diatom ooze	TYPE  TYPE  TYPE  TIC OOZE  ALOM OOZE  ALOM OOZE  THE SAN det  ALOM OOZE  ALOM OOZE	1	se[ubonoroim]	Anterior September 19 19 19 19 19 19 19 19 19 19 19 19 19	9 5 70 F	Clay   M Co o o o o o o o o o o o o o o o o o	ABUN ABUN 115 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	15 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Discoasters 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	MRCE   MRCE	0 0 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Section of the sectio		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 g = 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Cupation Condition Configuration Continual Con	Pose condition	4 d d d d d d d d d d d d d d d d d d d	3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Detailed De Detailed De Detailed De Detailed De DATOM GOZE oltve gray 5% 4/2 an intermottling of the out spensy 15% 4/2 an intermottling of the out spensy 15% 15% 15% 15% 15% 15% 15% 15% 15% 15%	NE Dote  NE SY 4/2 and so fit the state of t	Detoiled Described (Livel 15by K. H. Gride And Detoiled Describion  Detoiled Description  DLATCH COZE  July E gray 54/2 and 6/2 light olive gray  intermetting of the 2 major colors and similar hues to out  spongs slightly slits lutte  But do not appear in smear slides due to their relat  large alze; occasional chunks of volcanic punce up  but do not appear in smear slides due to their relat  large alze; occasional chunks of volcanic punce up  but do not appear in smear slides due to their relat  large alze; occasional chunks of volcanic punce up  pumice fragments at 49 cm, top 10 cm appear washed  of 57 //2 light gray  and olive gray  and olive gray  and olive gray  and olive gray and sid amerial  numerous black specks and rock fragments throughout, mr  probably punce, to 1/2 cm in diameter  S irregular, mottled  Olive gray and sid low olor throughout numerous bla  spongs slite malch, in places slity  slight variations in the color throughout numerous bla  specks and as and sid low color throughout, ariations in the color fragments, (probably punce thoughout), ite rafted pebble lom x 2 cm at 616 cm,  Rrouges of pumice chunks at 664, 705, 782 cm.large punce thoughout, ariations in the color small pebbles  S irregular  NOULANIC GLASS  N 5/2 olive gray  S irregular  S irregular  NOULANIC GLASS  N 5/2 olive gray  S irregular  S irregular  S irregular  NOULANIC GLASS  N 5/2 olive gray  S irregular  S irregular  Noulanic chunk (1 x 2 x 2 cm) at 1042 cm, scattered blac  specks throughout 1045-1059 cm, core cutter	Detoiled Description  Detoiled Description  Detoiled Description  Dive gray 5% 4/2 and 6/2 light olive gray intermotting of the 2 major colors and similar hues through out out spear in smear sildes due to their relatively but do not appear in smear sildes due to their relatively but do not appear in smear sildes due to their relatively but do not appear in smear sildes due to their relatively but do not appear in smear sildes due to their relatively but do not appear in smear sildes due to their relatively but do not appear in smear sildes due to their relatively but do not appear in smear sildes due to their relatively in diameter scattered throughout, pocket of broken pumice fragments at 49 cm, top 10 cm appear washed consistent sets and relative gray and olive gray mottling and marbling throughout, gray and olive gray and rock fragments throughout, most probably pumice, to 1/2 cm in diameter  Sitregular, mottled  Mind one  Sitregular, mottled  Might oriented in the color throughout numerous black spocks and smilar hues throughout sand smilar in cok fragments, probably pumice  Roughs of major colors and similar hues throughout spocks and smilar in cok fragments, from the gray and smilar marbling of major colors and similar hues throughout gray slite and can in coke fragment (2 cm x 3 cm) at 968 cm  Sight variations in the color throughout class  Sitregular  DIATON GOZE  Sitregular  Sit	out, pro out, pro out, pro s and sii, s and sii, s due to volcan, pocket 0 cm app gments th ameter ameter filar hue x 2 cm x 2 cm, sc core cut	by K.T.SIRES similar hues thr similar hues thr trobably pumice, the their relative the of broken throughout, gray throughout, mos throughout, mos throughout ues throughout crinumerous black and the cm, 82 cm.large pumi
															ه مارس ه رو	4 4	4 % 4	, d	end	end of core					
	7				-	-	-	_				-	-	Reutorene	- 1	٥, ١٠ ١٥, ١٥, ١٥, ١٥, ١٥, ١٥, ١٥, ١٥, ١٥, ١٥,		2,0,0							

VISUAL CORE DESCRIPTION Page / of /	5 Leg 4 Sta 51 Core No. Lat 52º 197'S Long 04.º 300'E Depth	cotion African Plate NE of Triple Junchen	Detailed Description	CALOS DATOM GOZE AND CHUNKS OF PUMICE	occasional swirls and mottles, olive gray	smooth, soft silic mulch	small black specks scattered throughout; three pockets of vuggy "pumice like chunks" 26-31, 66, 97 cm, several	black rock fragments at 97 cm S end of core			•															
VISUAL COR		lon oic	Lithologic Log	4	* d	-	30cm to 12	* d * d	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3,	,	10	d d	4	الم الم	Pleytorne Bonon of core: 105cm	<b>,</b> ,,,	1.001			J	.,,,		 1111	.1.	 -
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							Siliceous	6 t	refoibeA	t	7	Ħ	7				Ħ	Ħ	2	ij						
				E		-	Sili		2mots iQ	84	83	84	80	9/	81	85	83	89	89	83		89				
				6		Ringenous Material			syant0	-	2	-	2	7	6	-	5	5								
				1059	98	N SIIO	S	ers	J 26032 t Q																	
CORES					CES (	ionen	Calcareous	s	Pteropod																	
SEDIMENT CORES		36 PC	51	ngth	ED ABUNDANCES (%)	~	Cal	site	2010nnsN																	
			No.	Total Core Length	D AB			s	Foram	1				3	Ħ											
0.1.		Core No.	Station	0) [	ESTIMATE				Clay	5	80	2	2	10	2	2	2	5	5	10	2	2				
238		Con	Sta	Tota	ES	irial		spag	o i nao fov Az	2	2	* 7	*	**	2	*,	2	**	7	2	85	-				
SNO						Mate	Silt & Sand		set i foeS																	
RIPT						nanic	11	njez	bonons i M	t,	Ħ	-	5	2	5	2	5	5	ä	2		2		T		
0650		1				Inor	S	suļe	Detrital 9r	1	2	2	10	5	80	2	10	2	3	2	13	2	red	1	1	
SLIDE				1													-	-	-	-			alterred	-		
298		Chain	Expedition 115	Vo. 4				SEDIMENT		diatom ooze	diatom ooze	800 cm diatom ooze	diston oose	diatom ooze	cm volcanic glass	cm diatom ooze	* some									
		Ship:	Expec	Leg No.				LEVEL		1 cm	100 сш	200 ₪	300 сш	400 cm	500 cm	600 сш	700 cm	800 cm	900 сш	1000 cm	1034 cm	1058 cm				

CORES
SEDIMENT
4.H.O.1.
7
DESCRIPTIONS
SLIDE
SMEAR

301

VISUAL CORE DESCRIPTION Page 1 of 2	EUEN]	ON NIKITEMET (AFE BASIN	Detailed Description	0-51 CALC SILIC OOZE GRADES TO CALC OOZE	10YR 6/4 light yellowish brown extensive brown and marbling in	3	moist silty lutite with faint abund, forams 0 51-145	CALC 002E 1078 6/3 pale brown extensive very pale brown burrowing throughout,thin well assessed burrons often earlies width of lines at	preserved outloops often span entire wholl of these ac various inclinations.	forens	145-156	IOYR 7/2 14ght gray	extensive intermotting with unit above at upper contact smooth compact lutite S mottland	156-327 NAND 002E	10YR 8/1 white numberous large and small light grav zones and burrows.	curiously inclined in opposite directions throughout most	262-267 cm, the largest of the light gray zones have tiny enhanced an article content of this	very firm plastic like lotite	327-356 CALC 002E	SY 7/2 light gray homogeneous throughout	very stiff compact brittle lutite S irregular	356-422 CALC 002E	10YR 8/1 white tweepular 5Y 7/2 light gray inclusions (burrows?)	490-505 cm	Sirregular (cracked) 422-594	FLOW IN end of core		
VISUAL CC	Ship CHAIN Cru Total Length 594 Core condition	Physiographic location	Lithologic	0 10 0	1 4	10 10 10 10 10 10 10 10 10 10 10 10 10 1	10 10 1	1010	311	do totata	1111111	1111	740	110	1.4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		111111111111111111111111111111111111111	111111111111111111111111111111111111111	1.1	1111	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 .	++++	##### 	+++++	**************************************
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						Sinc		sabi	uods	L																		
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				Ĭ		rial			1610	1 83	-	2 84	-					-				-				+	-	
				in		Biogenous Material	-		0410		-							-							-	-	+	
ES.		1	1	10 5	*	enous	-	\$191260	-			-	-				-								-		-	
MENT CORES	9	,	51	-	ANCES	Biogenou	-	spodo.			-	-	-				-	-		_		-			+	+	-	
DIMEN	9	200	1	Lengt	ABUNC		-	Orams (fess)	-	b	-	E	-		-			-			-	-			+	-	-	
1. 58		0.	n No.	Core	ATED	H	-	Clay	-			-			-			-							+	+	1	
.н.о.		Core No.	Station No.	Total Core Length	ESTIMATED ABUNDANCES (#)	10	5	pueus		7	87 4	7	-					-		-		-			-	+	-	
		٥	S	-		Inorganic Material		o in 6:			00	2	-					-				-			-	-	4	
PTION						H OIL		set i	-		-		-					-								-	-	
SCRI		1				Sil	5	grain: 9 [ubono	Micr	2	-	11	-					-							-	-	-	
106 0			1			-		[611	Detr	9	00	2																
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDI	£		Expedition 115	10. 4			SEDIMENT	TYPE		diatom ooze	chunk of volcanic glasm	diatom ooze																
		Suip	Exped	Leg No.				LEVEL		1 cm	28 cm	10% cm																

303

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 2

Total Core Length 594 Core No. 37 PC Station No. 58 Expedition 115 Ship: Chain Leg No.

SEDIMENT   SEDIMENT   STILL &			Ino	roan	Tag o	EST	IMAT	D AB	ESTIMATED ABUNDANCES (%)	NCES (%)	v	Material	-		
SEDIMENT   SEDIMENT				Silt	& San	P			Cal	ane			Sil	iceo	Sn
calc silic come         8         tr         tr         30         8         40         2         6         2           calc coze         10         tr         40         1         35         tr         12         tr           namno coze         1         1         5         75         4         3         1           namno coze         1         16         5         70         5         3         4         1           namno coze         1         18         2         70         5         4         1           namno coze         1         8         5         70         5         4         1           calc coze         1         8         5         70         5         4         1           calc coze         1         8         5         70         5         4         1           calc coze         1         8         5         50         2         4         1           calc coze         2         8         60         3         5         6           calc coze         2         8         60         3         5         6      <	EVEL	SEDIMENT			sətiloəZ	Volcanic sbrake	Clay	Porams	2 f i 2 2 0 1 0 n n 6 V	pteropods	Discoasters	0thers	2mo1610	sinslotbeA	Sponges
calc coze         10         tr         40         1         35         tr         12           name coze         1         16         2         75         4         3           name coze         1         15         5         75         2         2           name coze         1         16         5         70         5         3           name coze         1         18         2         75         4         1           name coze         1         38         5         70         5         4           calc coze         1         38         5         50         2         4           calc coze         2         2         8         60         3         5           calc coze         2         2         8         60         3         5		calc silic		5		Ħ	30	œ	07		2	9	7	5	m
Namo ooze   1	55 CB	+	10			Ħ	0.7	-	35		5	12	Ħ		2
name ooze         1         15         5         75         2           name ooze         1         16         5         70         5           name ooze         1         18         2         75         4           name ooze         1         18         2         70         5           calc ooze         1         38         5         50         2           calc ooze         2         31         4         55         2           calc ooze         2         22         8         60         3	152 cm	-	tr.				16	2	75		4	8			
nanno coze 1 16 5 70 5  nanno coze tr 15 5 75 4  nanno coze 1 18 2 70 5  calc coze 1 38 5 50 2  calc coze 2 31 4 55 2  calc coze 2 22 8 60 3	200 cm	-	-				15	2	75		7	7			
name ooze         tr         15         5         75         4           name ooze         1         18         2         70         5           calc ooze         1         38         5         5         2           calc ooze         2         31         4         55         2           calc ooze         2         22         8         60         3	240 cm		1				16	2	0/		5	3			
calc ooze     1     18     2     70     5       calc ooze     1     38     5     5     2       calc ooze     2     31     4     55     2       calc ooze     2     22     8     60     3	300 cm	-	5				15	2	75		4	-			
calc coze 1 38 5 50 2 calc coze 2 31 4 55 2 calc coze 2 22 8 60 3	350 cm	-	1				18	2	0/		2	4			
calc coze 2 31 4 55 2 calc coze 2 2 8 60 3	385 cm	+	1				88	2	20		2	4			
calc come 2 22 8 60 3	420 cm	-	2				31	4	55		7	9			
	575 cm		2				22	00	09		e .	5			

Lithologic Log 7 F 82 

Detailed Description

Ship CHAIN Cruise 115 Leg 5 Sta 50 Core No. 37PC

302 VISUAL CORE DESCRIPTION

304 VISUAL CORE DESCRIPTION

Page | of |

Ship CHAIN Cruise 115 Leg 5 Sta 50 Core No 37PG-Torial Langth 92 cm. Lat. 38 57,175 Long 12: 540E Depth 444 Bhy Lan Core condition EXECUENT Date Described 15 2014 15 by \$ 80.000.

Physiographic location NATH EAST (APE BASIN).

Lithologic

Detailed Description

CALC 002E
10TR 6/3 pale brown grades to 5/3 brown and back to 6/3
10TR 6/3 belown
extensive very pale brown mottling and burrowing throughout
moist silty lutite with a few scattered forans
end of core

end fore

T : RESTREME

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 37 PG Expedition 115 Ship: Chain

Total Core Length 92 Station No. 58

Leg No.

Biogenous Material
Calcareous sinslotbea 5 5 ST9410 Discoasters ESTIMATED ABUNDANCES (%) prenopods 30 STISSOTORNEN 36 4 Forams Clay Inorganic Material Silt & Sand volcanic shards Setifosi Ħ Micronodules Detrital grains 10 80 SEDIMENT 1 cm calc ooze calc ooze TYPE 91 cm LEVEL

Sm Barronnon, scro 中一 0 r. 7 NEISTENE. E S 107R 6/4 light yellowish brown several small black mottles and elongated burrows 277-295 cm 107R 6/4 light yellowish brown moist, firm lutte many almost horizontal, black fuzzy laminations and patches occurring in sections within unit, probably manganese 0-23 cm, 58-73 cm, 112-220 cm extensive mottling 398-403, common 403-408, light yellowish Total Length 878 cm. Lat 34° 0474'S Long 04° 5500'E Depth 5240 colls m. Care condition Excellent 592 2.5/1 black
mottling and matbling scattered at top to extensive at
bottom, light yellowish brown
modst firm lutite
5 treoniar extensive mottling throughout, light yellowish brown manist firm lutite S mottled 10TR 6/a Light yellowish brown I very small, black mottle of silt sized grains 386 modest firm lutite 10TR 6/4 light yellowish brown three very small black patches of silt sized grains moist firm lutite 10YR 6/4 light yellowish brown moist firm lutite Detailed Description UNPOSS CLAY/MN MICRONODULES UNPOSS CLAY/MN MICRONODULES UNPOSS CLAY/MN MICRONODULES UNPOSS CLAY WITH DETRITUS UNPOSS CLAY WITH DETRITUS UNPOSS CLAY WITH DETRITUS UNPOSS CLAY WITH DETRITUS UNFOSS CLAY WITH DETRITUS very homogeneous S slightly convex up S slightly convex up Physiographic location Mid- Cage Basin moist firm lutite S inclined 60° moist firm lutite very homogeneous 5Y 2.5/1 black 5Y 2.5/1 black VISUAL CORE DESCRIPTION S irregular irregular S trregular 368-382 277-330 398-408 757-807 330-368 382-398 0-265 0 | ± 0 | S CHO O HY O SLT H. 34.T 0 400 SET Core condition SLT D 217 Ę 547 1:4 SLT ť 175 277 5.7 SLT Lithologic 0 31.7 L09 217 717 Tw. 2 - 1 32 5m -0 . REISTORME

VISUAL CORE DESCRIPTION

Page 2 of 2

60 Core No 38 PC Leg 5 Sto. Ship CHAIN Cruise 115

Detailed Description 454-493 Lithologic

common mottling throughout, light yellowish brown lighter and darker hues throughout UNFOSS CLAY/MN MICRONODULES 5Y 2.5/1 black moist firm lutite irregular 5 9

UNPOSS CLAY WITH DETRITUS AND UNPOSS CLAY/AM MICRONODULES 1078 6/4 Light yellowish brown, 37 2.5/1 black severe intermottling and marbling 2 the two major colors moder firm lutite 493-514

٥

SLT

CALC OOZE WITH DETRITUS S textural, convex up 514-535

10TR 6/4 11ght yellowish brown and 5Y 2.5/1 black fine aand and sill.

fine aand and sill.

I cm chunk of black sill and luttle grains cemented together 518 cm alternating microlaminations of the 2 major colors, laminations way from very convex up in shape to nearly flat and horizontal; cross bedding

S textural, horizontal 535-878

3.7

UNFOSS CLAY WITH DETRITUS

SLT

1078 6/4 light yellowish brown fuzzy black lamination at 608 cm moist firm lutite

unit homogeneous except for 2 areas of black mottling, core cutter 863-878 cm end of core

1

of coff \$78cm

· SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

SEDIMENT  EL TYPE  On With det		.01	0.	38 PC	1					Care condition Ex	EXCELLENT Date Described 16.781/15 by R M'GIRR
EL SEDIMENT EL TYPE  on Unfoas clay can with det 22  on unfoas clay 23  on unfoas clay 23		Station No	n No.	09	-					Lithologic Log	Detailed Description
SEDIMENT SEDIMENT TYPE TYPE THE CONTRACT STATE TO WITH det STATE T		Total Core		Length	878	8	Cm C		RESPIEME	- 5	UNPOSS CLAY WITH DETRITUS
SEDIMENT TYPE TYPE unfoss clay vith det unfoss clay unfoss clay unfoss clay unfoss clay		ESTIMATED		ABUNDANCES (%)	(%) S						furn of page of the formula furnished streams throughout modes from the formula furnished the formula formula from the formula
SEDIMENT TYPE  TYP	Inorganic Material Silt & Sand	rial	-	Calca	Biogenous	Biogenous Material	Siliceous	Shoa		5.5	S "graben-like" shape
cm with det 20 cm with det 20 cm with det 25 cm with det 25 cm with det 25	sətifoə2	shards Shards	Porams	2 [ i 2 20 1 on n 5 V	teropods 01 scoasters	shers	smo16 f0	sinsloibs8	w <sub>1</sub>	•    •	UNPOSS CLAY WITH DETRITUS  107R 6/3 pale brown  107R 6/3 pale brown  107R 107R 6/3 pale brown  107R 6/3 pale brown  107R 6/3 pale brown  107R 6/3 pale brown  107R 107R 107R 107R 107R 107R 107R 107R
unfoss clay cm with det 25 cm unfoss clay 10	+	-	70	-	-	+	-	-			core rebound) recovery; 1st. 0-85 cm, 2nd 85-154 cm end of core
unfoss clay 10	2		. 89			-			Newsene	Baren of CORE: 140 cm	
	2	4	83			1				ļ,,,	
1. 15	09	2 2	23			ä			22	.,,,	
20	2	tr 7	76	ä		ä					
460 cm with det 20	4	2 7	73			Ħ					
20		1 1	16 15	7	-	07					
20	1	2 7	11	Ħ		Ħ				111	
700 cm with det 20	1	1 7	78	Ħ		5					
20	1	2 7	11	1							
cm with det 20	1		. 62	b						,,,,,	
										ļ	
								-		.,,,	
*silt-sized	sized										
										•	
							1	-		,	
							1	+		7.	
					-		7	-		т.	

VISUAL CORE DESCRIPTION

Page / of /

Ship CHAIN. Cruise 115 Leg 5 Sto 69 Core No 39 PC.

Total Length 491. cm. Lat 32° 16 43 S Long 5° 0455 CDEpth 4018 core.

Core condition EXCELLENT Date Described 15 JUN 15by R H'GIRR

Physiographic location Southern Age!a Sasin + 0+ Lithologic Log SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES 38 PG Station No. 60 Core No. Expedition 115 Chain Ship:

				EST	ESTIMATED ABUNDANCES (%)	D ABU	INDANC	ES (					
	Inor	Inorganic Material	"ate	rial		-	B	Biggenous	0	Material	le.	1	1
	01	silt &	Sand	T			Cal	Calcareous	Sn		Sil	Siliceous	S
LEVEL TYPE	Detrital * enterp	Mi cronodul es	səşiloəz	Volcanic	Clay	Rorams	slissotonnsV	pteropods	Systems	others	SmotsiO	Redioleria	sabuods
cm with det	50	-		2	72		2			3			
unfoss clay 85 cm with det	25	2		3	69		-	•		E			
unfoss clay 153 cm with det	25	1		~	65		5			E			
* silt-sized													

O-178

GALC GOZE

LOYR 7/3 very pale brown
occasional motifes throughout, white halo usually around
very pale brown center, mottled at bottom contact
moist fitm silty lutite
slight variations in hue throughout, somewhat darker 170-178
S motifed

Detailed Description

CALC 002E

10TR 8/2 white grades to 7/2 light gray

10TR extered mottles throughout, white, usually haloed around gray center, mottled at centact

Stay center, mottled at centact

Smottled an octor throughout

CALC GOZE
10YR 8/1 white grades to 7/3 very pale brown
large white mottles scattered throughout, thin black streaks
throughout
moist very firm slightly silty lutite
end of core 361-491

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PLEISTRENE SOTTENT OF CORE WY CM

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Page 1 of 1

· SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

Cruise 115 Leg 5 Sta 49 Core No 39 PG 121 cm. Lat 32" 1443 5 Long 5" 6455 W Depth 4016 core me	Southern	2	-O I O-11 CALC WZE	large mottle in center of unit, 3 x 3 cm. light gray	firm allty lutite	Void 0-2 cm S irregular	<u> </u>	IOTR 6/3 pale brown firm allty lutte	S tregular 58-79	CALC COZE 10YR 7/1 gray grades to 7/3 very bale brown	firm silty lutite several small white and gray patches 58-64 cm	S trregular 79-121	CALC 002E 10YR 6/3 pale brown	scattered white mottles throughout firm ship lutite end of core											
Ship CHANN Total Length	Physiographic location	Lithologic	H	· -	1	' + <del> </del> + + <del> </del> + + <del> </del> + + <del> </del> + <del> </del> + <del> </del> + <del> </del> + + + <del> </del> + + + + + + + + + + + + + + + + + + +	1	•••	****	,,,,	2 # 1	m		استا	ļ.,,	ч.	,,,,	***	ļı	1111	77		1111	ч	
					1		sabuods		I		1			T	T	T	T	T		T		T	T	T	7
						Siliceous	strafotban									1	1	T		1	1	T			1
			C		a l	Sili	SmotsiQ	Ħ																	
			1		teri	T	Others	10	10	10	01	2	2		T					T	T				
			165	-	Biogenous Material	S	Discoasters		77	b	5		נ		T					1	1		T		
	1		4	ES (\$	oden	Calcareous	pteropods		2						1	+	1		-	1	T				
	39 PC	3	gth	D ABUNDANCES (%)	18	Calc	sitssofonnsN	07	15	09	11	52	63							T					7
		.0.	Total Come Length	O ABU		T	2m6707	25	15	10	2	20	7		T	T				T	T				
	No.	DO UO	20	ESTIMATE		-	Clay	20	53	91	10	15	15		T			T			T	T			
	Core No.	Station	Tota	ESTI	ial	T	Volcanic	H	r.		ä	2	10	1	1	1		1	1	T	T	1		$\top$	1
2					Ma ter	Sand	Selifosi							+	+	+	+	+	+	+	+	+		+	1
					anic	11 8	Micronodules	-	2	5	-	-	1	-	+	+	-	-	+	+	+	+	+	+	+
	1				Inorganic Material	Si	Detrital	5					-		+	+	+	+	+	+	+	+	+	+	
		1	1					5	5	3	3	5			-	-	-	-	-	-	1	-		+	-
	Chain	tfon 115	5				SEDIMENT TYPE	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze												
	Ship:	Expedition	Leg No.				LEVEL	1 cm	100 сп	200 cm	300 сп	400 cm	по 067												

	REMOLE			Sn	Spondes					1				
				Siliceous	Redioleria									
	5		le.	Sil	2mots id									
			Material		279410	10	10	10	2	10				
1	121	(%	S	ons	Discoasters	Ħ	נ	tt		Ħ				
1		CES	igge	Calcareous	Pteropods									
	ngth	JNDAN	8	S	2 f i 2 2 0 1 o n n 6 M	10	20	30	22	21				
	e Ler	D AB	-		Forams	09	25	20	15	20				
5	Total Core Length	ESTIMATED ABUNDANCES (%)			Clay	16	07	35	20	0,				
218 5101 107	Tota	EST	Inorganic Material	P	Volcaníc sbrads	-	tı	1	1	1				
			C Ma	Sar	Zeolites									
			rgani	Silt	Mi cronodul es		3	2	3	. 6				
1			Ino		Detrital snieng	3	2	3	4	2				
	2				SEDIMENT	calc ooze	9200	9200	əzoo	calc ooze				
5	-				SEC	calc	calc	calc	calc	calc				
-	Leg No.				LEVEL	3 cm	30 сш	55 ст	70 cm	120 cm				

VISUAL CORE DESCRIPTION

Page 1 of 1

Ship GHAIN Cruise IIS Leg 5 Sto 71 Core No 407C.
Total Length 486 cm. Lat. 32 086275. Lang 97:07737 Depth 4480 Law.
Care condition Excellent Date Described HAM 15 by Bude.
Physiographic location Southern Anfold Bish.

0-235

Lithologic

CALC GOZE GRADES TO NARNO GOZE

10YR 7/3 very pale brown gently grades repeatedly to 7/4
very pale brown
slight intermottling of the two colors above in gradational
zones plus scattered white mottling throughout
firm slightly slity lutite with scattered forams; becoming
more plastic-like at base of unit
scattered streaked pockets of black flecks 50-180 cm 3 1 1 1

CALC GOZE

10YR 6/3 pale brown

extensive Light gray and white mottling throughout
firm plastic-like lutte with a few formas

common black flecks and streaked black clusters NANNO OOZE 251-270 

235-251

11

•

10YR 7/3 very pale brown extensive pale brown and light gray mottling and marbling throughout firm, compact, plastic-like jutte black shoundant in light gray mottles 270-485

NANNO 002E

10YR 8/1 white
a few shadowy gray mottles found scattered throughout
firm, very plastic-like lutite with very few forams
end of core

and of one

REHIMENE ŝ

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

317 VISUAL CORE DESCRIPTION

NOTE:  Defoiled Description  Solutions:  Local Code:  Aux. Code:  Local Local Sight white motifing found throughout firm slight white motifing and black fleeks occasional slight white with very pale brown common white motifing and black fleeks overy firm plastic like lutite with very few forams thin (1 cm) band of foram sand at unit basal contact solutions wery firm plastic like lutite with very few forams of thin code:  Local Code:
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318

Page 1 of 1

313 VISUAL CORE DESCRIPTION

Station No. 71 Total Core Length 146
E
Physiographic location Lithologic Log Log Phisison Log Log
on West Plank, Mid-Atlantic Nidge.  0-53  Calc Goze

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

321 VISUAL CORE DESCRIPTION

Cruise 115 Leg 5 Sta 80 Core No 42 PC  12 cm. Lat 31e 44.5 B'S Long 19705 e3. Depth 2915 m. an.  EXCENTENT  Date Described 14.8 MID AT AMILY 10 10 PC.		0-502 CALC GOZE GRADES TO NANNO GOZE	10VR 7/4 very pate brown grades to 8/3 very pate brown scattered but distinct, well formed white mottles throughout.	a few elongated in the zone 60-200 cm moist slightly silty lutite with scattered forans grades to	stiffer plastic like lutite around 215 cm; texture remains consistent from there to end of core from core barrel, not oriented for paleomagnetics end of core			
Ship GHAIN Cruise. Total Length 502 cn Care condition EXCE	Lithologic	RESOURCE TO THE TOTAL THE	10	1 1 6	1 1 1 1	11113	91	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
		E		Siliceous	Smodefd 67460fb88 Sponges			
41 60	11	h 53	ANCES (%)	Biogenous Material	Preropods Discoasters Others	35 5	30   5	
Core No. 41	Station No.	Total Core Length	ESTIMATED ABUNDANCES (%)		Ye ()	2 30 20 3	tr 44 10 3	
3	S			Inorganic Material Silt & Sand	grains  Micronodules  Zeolites  Zeolites	3	2	
Chain	Expedition 115	5		l	TYPE TYPE	calc ooze S	0 020 100	
	Expediti	Leg No.	-		LEVEL	5	-	

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Page 1 of 2

323 VISUAL CORE DESCRIPTION

Ship CHAIN Cruise 1/5 Leg 5 Sto 84 Core No 43 PC. Total Length 699 cm. Lot 31° 43.55. S Long 30° 52.42 Depth 4141 cege m. Total Length 699 cm. Lot 31° 43.55. S Long 30° 52.42 Depth 4141 cege m. Physiographic location West Flank, Hid. Atlants. Ridge. Lithologic Detailed Description	CALC GOZE  LIVYR 6/4 15th well raigh brown	common mottling throughout, pale brown	1	19-37 CALC 002E 10 YR 7/3 and 8/3 very pale browns 10 YR 7/3 and 10 YR 7	CALC 002E 10YR 7/3 very pale brown and 6/4 light yellowish brown	common mottling throughout, yellowish brown moist silty lutite	Spectified Spectified	CALC 002E 10 YR 7/3 and 8/3 very pale browns	common intermottling and marbling of the 2 major colors  I patch of white at 86 cm	moist silty lutite	CALC GOZE 10YR 6/3 pale brown	common mottling throughout, very pale brown and brown moists sity lufite of contribed	113-1	2 lutite mottles, pale brown one with a white halo, at 136 cm	firm rough textured lutite 3 cm wide lutite lamination at 117-120 cm, thin wavy white	Smottled	-	semi siliceous mulch	S irregular S irregular	LONG 002E  ONE 5/3 brown alternating 7/4 very pale brown  Town to common mottles throughout of the two major colors	hard stity lutite
Ship CHAIN Total Length Legan Core condition Physiographic to Lithologic Log	RESTREME TO I	1	0	1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0	<b>6</b> -	ط ا ،	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2	4	a !	┤	÷	a	<del> </del>	1	/A-	,	+	, ,,,,,	1	-
	E S		Siliceous	Sadiolaria															1		
	502		Materia	Discoasters Others Distoms	\$	9	2	2	2	2	+						1	+	-		
D O		ESTIMATED ABUNDANCES (%)	Calcareous	sfissofonnsN sboqonastq	60 tr	60 tr	75	85	06	06	+								-		
Ž	Total Core Length	I MATED AB	+	C) ay Forams	11 22	18 15	5 18	5 7	2 5	3 5		+				+	+	+	+	+	
Core No.	Tota	EST	terial	Volcanic							1						1				
			Inorganic Material Silt & Sand	Micronodules	-	T.				-	+	+	-			+	+	+	+	+	
in Core No.			Inor	Detrital		-	Ħ	7	7	5											
g 1	5	-		SEDIMENT TYPE	calc ooze	calc ooze	nanno ooze	namo ooze	nanno oore	nanno ooze											
Ship: G Expedition	Leg No.			LEVEL	l cm	100 сп	200 cm	300 св	400 cm	501 cm											

324 VISUAL CORE DESCRIPTION

Page 2 of 2

Ship CHAIN Cruise 115 Leg 5 Sta 87 Core No. 43 PC

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Detailed Description

Lithologic Log

alternating light and dark areas throughout; vertical streams, 6/5-699 cm, probable flow in end of core

325

SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

LEVEL   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   STANDARD   SEDIMENT   STANDARD   S	Companie   Companie	Expedi	Expedition 115				Sta	Station No.	١٠	25		. 1				
SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   STORE	SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   STOLICE   STOLICE	Leg 1					Tota	00	e Le	ngth	9	66		5		
The calc core   10   10   10   10   10   10   10   1	Trype   Stephens   S						ES	TAT	0 48	UNDAN	CES (	3				
SEDIMENT	SEDIMENT   SEDIMENT			Ino	rgani		erial			8	iogen	S	ater	-		
10   10   10   10   10   10   10   10	1				Silt	Sar	•			3	Sare	S		S	ceo	
1	1	EVE	SEDIMENT	su	sə		sp			sį		S.				
cal calc coze         5         3         2         40         10         30         tr         10           cal calc coze         3         3         2         29         3         50         tr         10           cal coze         3         3         1         30         3         55         tr         10           cal coze         3         2         3         2         3         2         10         10           cal coze         3         4         tr         50         5         28         tr         10           cal coze         3         4         tr         50         3         24         tr         50           cal coze         3         3         4         tr         60         3         24         tr         5           cal coze         3         3         4         10         30         tr         5           cal calc coze         3         1         4         3         4         11         5           cal calc coze         10         2         4         1         4         1         1           cal calc coze         10 <td>cal calc coze         5         3         2         40         10         30         tr         10           cal calc coze         3         3         2         29         3         50         tr         10           cal calc coze         3         3         1         30         3         55         tr         10           cal calc coze         3         4         tr         50         5         28         tr         10           cal calc coze         5         3         4         tr         50         3         24         tr         5           cal calc coze         5         3         4         tr         60         3         24         tr         5           cal calc coze         5         1         1         60         2         21         1         5           can calc coze         10         tr         4         1         60         2         2         1         1           can calc coze         10         tr         4         2         4         1         5           can calc coze         10         2         4         1         4         1</td> <td></td> <td>TYPE</td> <td></td> <td>Micronodul</td> <td>Zeolites</td> <td></td> <td>Clay</td> <td>Forams</td> <td>tzzołonnsk</td> <td>pteropods</td> <td>Discosster</td> <td>219410</td> <td>2mo 1 &amp; t O</td> <td>Radiolaria</td> <td></td>	cal calc coze         5         3         2         40         10         30         tr         10           cal calc coze         3         3         2         29         3         50         tr         10           cal calc coze         3         3         1         30         3         55         tr         10           cal calc coze         3         4         tr         50         5         28         tr         10           cal calc coze         5         3         4         tr         50         3         24         tr         5           cal calc coze         5         3         4         tr         60         3         24         tr         5           cal calc coze         5         1         1         60         2         21         1         5           can calc coze         10         tr         4         1         60         2         2         1         1           can calc coze         10         tr         4         2         4         1         5           can calc coze         10         2         4         1         4         1		TYPE		Micronodul	Zeolites		Clay	Forams	tzzołonnsk	pteropods	Discosster	219410	2mo 1 & t O	Radiolaria	
cm         calc oute         3         3         2         29         3         50         tr         10           cm         calc oute         3         2         3         2         10         50         tr         10           cm         calc oute         2         tr         20         13         tr         10           cm         calc oute         3         4         tr         50         3         24         tr         5           cm         calc oute         3         3         2         47         10         30         tr         5           cm         calc oute         3         3         2         47         10         30         tr         5           cm         calc oute         3         3         4         1         60         3         24         1         1           cm         calc oute         10         1         1         60         2         2         4         1           cm         calc oute         10         2         1         4         2         4         1         1           cm         calc oute         10<	cm         calc cote         3         3         2         29         3         50         tr         10           cm         calc cote         3         3         1         30         3         55         tr         10           cm         calc cote         2         tr         3         2         10         50         tr         10           cm         calc cote         3         4         tr         60         3         24         tr         5           cm         calc cote         3         3         2         47         10         30         tr         5           cm         calc cote         3         1         1         60         2         21         tr         5           cm         calc cote         3         1         1         60         2         2         4         10           cm         calc cote         10         2         4         2         4         1         1           cm         calc cote         10         2         4         2         4         1         1           cm         2         2         2		calc ooze	5	3		2	07	10	30		ä	10	ä		
cm         calc coze         3         3         1         30         3         55         tr         5           cm         calc coze         3         2         3         22         10         50         tr         10           cm         calc coze         3         4         tr         50         3         24         tr         10           cm         calc coze         3         3         tr         60         3         24         tr         5           cm         calc coze         3         1         60         2         47         10         30         tr         5           cm         calc coze         10         tr         tr         43         2         40         tr         10           cm         calc coze         10         2         tr         43         2         40         tr         10           cm         calc coze         10         2         tr         43         2         40         tr         10	cm         calc coze         3         3         1         30         3         55         fr         5           cm         calc coze         3         2         3         22         10         50         tr         10           cm         calc coze         3         4         tr         50         3         24         tr         5           cm         calc coze         5         3         tr         60         3         24         tr         5           cm         calc coze         3         3         2         47         10         30         tr         5           cm         calc coze         5         1         1         60         2         21         tr         10           cm         calc coze         5         1         1         60         2         2         4         10           cm         calc coze         10         2         tr         43         2         40         tr         10           cm         calc coze         10         2         tr         45         2         3         4         10	50 cm	calc ooze	3	3		2	29	3	50		ä	10			
cal calc coze         3         2         3         22         10         50         tr         10           #Illo         calc coze         3         4         tr         50         3         24         tr         50           cal calc coze         5         3         4         tr         60         3         24         tr         5           cal calc coze         5         1         1         60         2         21         tr         5           cal calc coze         10         tr         tr         43         2         40         tr         5           cal calc coze         10         2         tr         45         2         31         tr         10	cal calc coze         3         2         3         22         10         50         tr         11           all Hoc         calc coze         3         4         tr         50         3         24         tr         50           cal calc coze         5         3         4         tr         50         3         24         tr         5           cal calc coze         5         3         1         60         3         24         tr         5           cal calc coze         5         1         1         60         2         21         tr         10           cal calc coze         10         tr         43         2         40         tr         10           cal calc coze         10         2         tr         45         2         31         tr         10	80 cm		3	3		-	30	3	55		ä	2			
			calc ooze	3	2		3	22	10	50	נ	5	10			
cm calc coze 3 4 tr 50 5 28 tr cm calc coze 5 3 tr 60 3 24 tr cm calc coze 3 3 2 4 tr 60 3 24 tr cm calc coze 5 1 tr 60 2 21 tr cm calc coze 10 tr 7 43 2 40 tr cm calc coze 10 2 tr 45 2 31 tr	cm calc coze 3 4 tr 50 5 28 tr  cm calc coze 5 3 tr 60 3 24 tr  cm calc coze 3 3 2 4 tr  cm calc coze 5 1 tr 60 2 21 tr  cm calc coze 10 tr 43 2 40 tr  cm calc coze 10 tr 43 2 40 tr  cm calc coze 10 2 tr 45 2 31 tr		0 0	2	#			20		13		ä	5	09		
cm calc coze 5 3 tr 60 3 24 tr cm calc coze 5 1 1 60 2 21 tr cm calc coze 10 tr tr 43 2 40 tr cm calc coze 10 tr 43 2 40 tr cm calc coze 10 2 tr 45 2 31 tr	cm calc coze 5 3 tr 60 3 24 tr cm calc coze 3 3 2 47 10 30 tr cm calc coze 5 1 1 60 2 21 tr cm calc coze 10 tr 7 43 2 40 tr cm calc coze 10 2 tr 45 2 31 tr	200 cm	calc ooze	3	4		Ħ	20	2	28		۵	10			
Cm calc coze 3 3 2 47 10 30 tr  Cm calc coze 5 1 1 60 2 21 tr  Cm calc coze 10 tr tr 43 2 40 tr  Cm calc coze 10 2 tr 45 2 31 tr	cm calc coze 3 3 2 47 10 30 tr  cm calc coze 5 1 1 60 2 21 tr  cm calc coze 10 tr	300 cm	calc ooze	5	3		נ	09	٣	24		:	5			
cm calc coze 5 1 1 60 2 21 tr  cm calc coze 10 tr	cm calc coze 5 1 1 60 2 21 tr  cm calc coze 10 tr (4) 2 40 tr  cm calc coze 10 2 tr (4) 2 31 tr			3	3		2	47	10	30		5	2			
Cm calc core 10 tr tr 43 2 40 tr	cm calc core 10 tr tr 43 2 40 tr	500 cm	celc ooze	2	-		-	09	2	21		b	01			
cm calc core 10 2 tr 45 2 31 tr	cm calc come 10 2 tr 45 2 31 tr	ез 009	calc ooze	01	5		5	5	2	05		5	~			
			calc ooze	10	7		5	5	2	31		E	01			

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Page 1 of 1

Ship CHAIN Gruise 115 Leg 5 Sta 84 Core No 43 PG.
Total Length 117 cm Lat 31 43 55'S Long 20'5242' w Depth 4141 case m
Core condition Excellent Date Described 14 50415 by R M5 188 Physiographic location West Flank, Mid-Atlank, Ridge

Detailed Description Newsonate The A

REISTXENE BORON OF CONS 117 cm

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1

0-111/
CALC OOZE
10TR 6/3 pale brown
extensive brown mottling 50-60 cm, few throughout rest of
core
moist silty luttice
several patches of white lutte, 25 cm, 33 cm, 46 cm, 67
and 107 cm; core cutter 112-117 cm
end of core

327

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Ship CHAIN Cruise 115 Leg 5 Sta 85 Core No 44 PC.
Total Length 880 cm. Lot 31-3449'S Long 22-34.73 WDepth 4411 coarm
Core condition EXCELENT
Date Described 1274175 by 8 11-618 R
Physiographic location Extens Swither Grazilen 855in

Detailed Description 0-305 Lithologic L09

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CALC ODZE AND CALC CLAY
10TR 6/4 Light vellowish brown and 4/4 dark yellowish brown
10TR 6/4 Light vellowish brown and 4/4 dark yellowish brown
10TR 6/4 Light extensively of the two major colors throughout
11Tm silty lutite
alternating light and dark area within unit, with extensive
mottling of the other color in each;

76-103 cm 134-152 cm 159-184 cm 202-232 cm 273-305 cm 0-5 cm 77 103-134 cm 17 132-159 cm 11 184-202 cm 2 232-273 cm 2

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NANNO OOZE GRADES TO SILIC CALC OOZE, WITH LAMINATIONS

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TOT

in color; several black, lutite laminations convex up 446-456 cm of DIATOM 002E

JUNE 7/3 very pale brown
large, connect mottles, white, along I side from
305-340 cm, 370-416 cm
firm, hard moist silty luttle
firm, hard mick) convex up laminations of silic muich
340-370 cm, and 419-424 cm, the bottom most several
laminations are very black, while most are light gray

S convex up 456-880

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CALC 002E

107R 6/4 light yellowish brown and 4/4 dark yellowish brown
common intermocities of the 2 mm of occurs throughout,
large (444 cm) white, irregular mottle at 578 cm
elternating light and dark areas throughout entire length 532-555 591-658 698-749 773-787 831-850 877-880 555-591 658-698 749-773 787-831 850-877 864-880 cm end of core of unit 492-532 11ght

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T ES MEHTRENE

cm core cutter

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VISUAL CORE DESCRIPTION

Page 2 of 2

85 Core No. 44PC \_ Leg 5 Sta. Ship CHAIN Cruise 115

Lithologic

od Description

Baren of Cons : No con Sm Tile ۵ 137

See of

Expedition 115

Leg No.

Ship: Chain

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NCES (*)  Biggenous Material  Biggenous Material  Biggenous Material  Consession of the residual of the residu	e strefotbes	6 einefolbes	e stasfothes	No.
smoterd T T 4	sandrers consistent of the constant of the con	E Z Smoterd 7 7 7 4	E	8 strafotba9
an shanto w w w m	a snento w w w	2	anotaid to to 4	
ž	¥	v v v v ofthers	a o o nruers	2 Smoterd 1 1 1 4 1
10.1.   SEDIMENT CORES   10.1.   SEDIMENT CORES   10.1.   SEDIMENT CORES   10.1.   SEDIMENT CORES   10.1.   SEDIMENTED ABUNDANCES (*)   SEDIMENTED ABUNDANCES (*)   SEDIMENTED ABUNDANCES (*)   SEDIMENT CORES	o S. Supression to a a a	Single State		on of the residual of the resi

Volcanic Sprads Sectioes sə[ubonoəsiM Detrital grains

Inorganic Material Silt & Sand

SEDIMENT TYPE

LEVEL

light calc coze dark 90 cm calc coze light 29 cm calc clay 11ght calc calc coze dark 290 cm calc coze

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tr 5

30 30

10 20 40 40 40

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Leg No.	Leg No. 5	Ι.	Tota	Total Core Length	e Le	19	5		th 99		66	
			EST	LIMATE	D ABL	NDAN	C	CES (				
		Inorganic Mater	Material			Calc		areo	Biggenous M.	S	Materia	S
LEVEL	SEDIMENT TYPE	Detrital grains Micronodules	Zeolites Volcanic shards	Clay	Rorams	sfissolonnsN	, ,	pteropods	Discoasters		Discoasters	Discoasters creaters
1 cm	calc ooze	5 2	2	31	15	07		-	5	tr 5		
50 сп	calc ooze	3 2	2	09	6	25				2	5	5
75 GB	calc ooze	3 3	-	09	2	23			b	tr 5	-	-
						1						

S-pro-

VISUAL CORE DESCRIPTION

Page 1 of 2

several zones of extensive fine dark yellowish brown mottling 485-497 cm, 540-555, 580-591 cm otherwise common, fine, dark yellowish brown mottling and an occasional haloed very pale brown spherical mottle end of core end of core 10TR 7/4 very pale brown 6/4 light yellowish brown and 5/4 yellowish brown extensive complete intermottling of the colors above moist slightly silty lutte with forms content varying from scattered to abund, irregularly throughout Gmottled 162-204 7.5TR 5/4 brown very extensive small dark brown and yellowish brown burrowing and mottling, at base of unit is one large spherical reddish brown firm mottle 10TR 5/4 yellowish brown grades to 4/4 dark yellowish brown very extensive intermottling and inter burrowing of the two colors above firm compact slick lutite 6 mottled SYR 6/4 light reddish brown extensive elongated yellowish brown burrowing and mottling slick compact lutite becoming firmer down core small (2mm) spherical black clusters of Hn micromodules G mottled CALC 002E
10TR 6/4 light yellowish brown
extensive elongated yellowish brown burrowing and mottling
compact slick lutite
S mottled Total Length Style Core No 45 FC.

Total Length Style Core No 45 FC. CALC 002E

7.87 4/4 dark brown

common large very distinct light reddish brown mottles
in the zone 400-445 cm, otherwise fine dark brown

very firm compact amooth lustte

G mottled

G mottled Core condition CACCELLENT: Date Described 944475 by 18 Marks.
Physiographic location HWNTER CHANNEL. EXTREME FNIHERN BHZIL 14691 stiffer more compact slick lutite S mottled Detailed Description 10YR 5/4 yellowish brown CALC OOZE CALC GOZE CALC OOZE CALC OOZE 204-268 334-458 268-285 458-591 The state of the s 1101 Ship CHAIN Lithologic

335

Page 2 of 2

334 VISUAL CORE DESCRIPTION

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Type	Type	Expedit Leg No.	Expedition 115 Leg No. 5	1.			Stat	Station No. Station Total Core Length	o. e Len	86 gth		591			5
Inorganic Material   SEDIMENT   SEDIMENT   SEDIMENT   SINGLAND	Inorganic Meterial   SEDIMENT   SEDIMENT   SEDIMENT   SINGLAND   SINGLAND						EST	IMATE	D ABU	INDANC	ES (	36			
SEDIMENT	SEDIMENT   SEDIMENT			Ino	rgani	C Mate	erial		1	8	oden	S	P	er	Material
SEDIMENT	1   10   12   12   13   14   15   15   15   15   15   15   15				Silt	& San				Cal	anec	Sni			Siliceous
cm         calc coze         1         4         tr         35         10         45         tr           cm         calc coze         2         4         tr         14         12         60         tr           cm         calc coze         1         5         tr         26         tr         55         12           cm         calc coze         2         tr         tr         60         26         10           cm         calc coze         1         tr         tr         tr         31         55         11           cm         calc coze         2         1         27         50         18	cm         calc coze         1         4         tr         35         10         45         tr           cm         calc coze         2         4         tr         14         12         60         tr           cm         calc coze         1         5         tr         75         tr         12           cm         calc coze         2         tr         tr         49         55         15           cm         calc coze         2         1         tr         tr         31         55         11           cm         calc coze         2         1         tr         tr         31         55         11           cm         calc coze         2         1         27         50         18	LEVEL	SEDIMENT TYPE			Zeo] † tes		Clay	Forams	sfissofonnsN	Pteropods	Discoasters	Others	6121120	Smoteid
CENTER CONTRACTOR CONT	cm calc coze 2 4 tr 14 12 60 tr calc coze 1 5 tr 24 tr 55 12 cm calc coze 2 tr tr 7 24 tr 55 12 cm calc coze 2 tr tr 49 55 12 cm calc coze 2 1 tr tr 7 60 26 10 cm calc coze 1 tr tr 7 1 57 50 18 cm calc coze 2 1 tr 7 tr 31 55 11 cm calc coze 2 1 tr 7 tr 31 55 11			-	4		Ħ	35	10	45		ä		2	5
calc ooze         1         5         tr         26         tr         55         12           cm         calc ooze         2         tr         tr         49         55         15           cm         calc ooze         2         1         tr         60         26         10           cm         calc ooze         1         tr         tr         31         55         11           cm         calc ooze         2         1         tr         50         18	cm calc coze 1 5 tr 24 tr 55 12  cm calc coze 2 tr tr 49 55 15  cm calc coze 3 tr tr 49 55 11  cm calc coze 2 1 tr 60 26 10  cm calc coze 2 1 tr 7 31 55 11  cm calc coze 2 1 27 50 18	100 cm	calc	2	7		ij	14	12	09		Ħ		00	80
cm calc coze 2 tr tr 26 tr 55 15  cm calc coze 3 tr tr 49 55 12  cm calc coze 2 1 tr 60 26 10  cm calc coze 1 tr tr 31 55 11  cm calc coze 2 1 2 7 50 18	cm calc coze 2 tr tr 26 tr 55 15 cm calc coze 3 tr tr 49 55 12 cm calc coze 2 1 tr 60 26 10 cm calc coze 1 tr tr 31 55 11 cm calc coze 2 1 2 7 50 18	165 ст	calc	1	2		b	24	11	55		12		6	
calc coze         3         tr         49         55         12           cm         calc coze         2         1         tr         60         26         10           cm         calc coze         1         tr         tr         31         55         11           cm         calc coze         2         1         27         50         18	cm calc coze 3 tr tr 69 55 12  cm calc coze 2 1 tr 60 26 10  cm calc coze 2 1 tr 7 31 55 11  cm calc coze 2 1 2 7 50 18	200 ст	calc ooze	2	Ħ		Ħ	26	r,	55		15	.,	2	61
cm calc coze 2 1 tr 60 26 10  cm calc coze 1 tr 31 55 11  cm calc coze 2 1 2 7 50 18	cm calc coze 2 1 tr 60 26 10  cm calc coze 1 tr 31 55 11  cm calc coze 2 1 27 50 18	300 cm	calc ooze	6	ţ		Ħ	65		55		12	-	-	
calc coze 1 tr tr 31 55 11  calc coze 2 1 27 50 18	cm calc coze 1 tr 31 55 11 cm calc coze 2 1 27 50 18	400 сш		2	-		ij	09		26		10		-	
cm calc coze 2 1 27 50 18	cm calc coze 2 1 27 50 18	000 сш	calc ooze	-	ä	I	Ħ	31		55		=	2	-	
		90 сш	calc ooze	2	-			27		50		18	2		
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						T									+
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Ship CHANN Cruise 115 Leg S Sta 86 Core No 45 PL Detailed Description Lithologic Log

Page 1 of 1

Ship CHAIN Cruise 115 Leg 5 Sta 86 Core No 4986

Total Length 152 cm Lat 51°51e85 Long 24\*26 41'N Depth 4305 11 ann
Care condition Excellent Date Described 938475 by 186464.

Physiographic location HMNER (HANNE)... EXTREME SOUTHSRN BRAZIL KKIN. Core condition Exce Ship CHAIN

0-152 13 + 10 Lithologic L09 Plasteene

Detailed Description

CALC 002E

10TR 6/3 pale brown repeatedly grades to 5/3 brown

10TR 6/3 pale brown repeatedly grades to 5/3 brown

addition of very pale brown burrowing 80-150 cm

moist slightly silty lutite with forams generally scattered

throughout; a bit more abund, in the zone 0-30 cm

end of core

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Total Core Length 152 Core No. 45 PG 86 Station No. Expedition 115 Ship: Chain Leg No.

	15	Sebuods			
	Siliceous	BinsloibsA			
-	Sil	smotefO			
Material		0thers	4	2	4
v	2	Discoasters	ä	Ħ	ь
Riogenous	Calcareous	prepodes			
Al Riogenon	Calo	2[i220]onn5N	65	65	20
		Porams	15	2	4
		Clay	15	23	50
prial	Silt & Sand	Volcanic			
N.	San	Zeolites			
inep	111	Micronodules	E	Ħ	5
Inor	S	Setrital Snisy	-	2	8
		SEDIMENT	9200	ezoo	9 Z00
		SEDI TY	calc ooze	calc	calc coze
		רבאבר	1 cm	100 сш	151 cm

Page 1 of 1

Ship CHAIN Cruise 115 Ley 5 Sta. 87 Core No. 46 GC.

Total Length 156 cm. Lat 29\* 53.41 S. Long 25\* 29.58 W Depth 4833 cear m.

Core condition Excellent Date Described 2.2414.75 by B. M.G.18 Physiographic location Southern Greatlien Basin

Lithologic

Detailed Description 507 REISTREME -

Ho + 4 10 ام.

WIGHLY CALC CLAY

WIGHLY CALC CLAY

WIGHLY STATE of the ark yellowish brown
mortified at lower contact, 7-18 cm dark brown
mortified at lower contact, 7-18 cm dark brown
fitum slightly silty lutite
G mortled
HIGHLY CALC CLAY
HIGHLY Ald ark brown and 4/4 dark yellowish brown
some intermortifing of the two major colors-two mortles at
some intermortifing of the two major colors-two mortles at
brown
fitum slightly silty lutite
several alternations of the two major colors
S mortled
102-122 + 4+

3

REISTURNE BOTTON OF CORE: 156 CM

CALC 002E
1078 5/3 brown
1078 5/3 brown
11ght extensive mottling throughout, dark brown and light yellowish brown
firm slightly silty lutite
5 mottled
5 mottled 122-156

2

HIGHLY CALC CLAY 107R 4/3 dark brown becoming 11ght yellowish brown 4/4 at 146 cm contects at upper contact, light yellowish brown; several mottles at upper contact, light yellowish brown; several firm slightly silty lutice 150-156 core cutter (unsplit) end of core

333

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

E Total Core Length 156 20 97 Station No. Core No. 115 Chain Expedition Leg No. Ship:

		SI	Sponges													
		Siliceous	Redioloria													
	, e	Sili	2mots id	-												
	Material	П	0thers	3	2	10	5									
2	S	1	Discoasters	Ħ	7	ä	ä									
ES (	Biogenous	Calcareous	Pteropods													
ESTIMATED ABUNDANCES (%)	8	3	2 f i 2 2 0 1 on n 6 M	20	16	19	20									
D ABU		1	Forams	5	ä	4	3									
IMATE			Clay	58	09	20	54									
EST	erial	P	Volcanic	7	8	-	2		T							
	Chat	Silt & Sand	Zeolites													
	rdani	311	Micronodules	7	9	9	9		T							
	Ino		Detrital snisnp	4	10	10	10									
		1 1	SEDIMENT	hly calc clay	hly calc clay	calc ooze	hly calc olay									
			LEVEL	1 cm	50 cm	110 сш	149 cm									
		_						<u></u>	1	1	L	1	 1	 	 1	

Page L of L

Ship CHAIN Cruise 115 Leg 5 Sta 88 Core No 47 GC.
Total Length 105 cm. Lat 38 \$155'S Long 21, 2227'Depth 4826 cape ~
Core condition EXCEUENT Date Described 3 JULY 35 by R H'GIAR Physiographic location Central Registral Sasin Detailed Description Lithologic

HIGHLY CALC CLAY
LOYR 4/3 brown
common small mottles throughout, brown and dark brown
firm lutitee
S mottled
9-105 SLIGHTLY CALC CLAY WITH DETRITUS
IOVR 3/3 dark brown
very small black specks scattered throughout
firm slity lutite
end of core 6-0 MELLINGER TO TO TO TO 1 54 0 5.1 L09 20cm 107

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SPINFOLENE BOTTON OF CORE INSCM Sur . 100 - 357 120

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 47 GC Expedition 115 Ship: Chain

Total Core Length 105 Station No. 88

Leg No.

5 ESTIMATED ABUNDANCES (%)

	1	1		1	3		ESTIMATED ABUNDANCES (*)	-	3			-	-	1
		200	rdans	200	erial		-	9	oden	OUS P	Blogenous Material	9	1	
	1		Silt	San	9		T	Cal	Calcareous	Sn		Sil	Siliceous	Sn
	YPE			2eo11tes		Clay	Forams	sfizzotonneN	pteropods	Discoasters	Others	Smoteid	Radiolaria	Sponges
	alc clay	5	10		8	57	b	20		5	2			
	lc clay det	20	10		2	19	Ħ	2			2			
	Ic clay det	20	12	5		19		2			2			
* probably zeplites, though exact determination has not been made	bably zepl	lites,	though	h exa	ct de	remit.	pation	has	not	been	made			

					-

Total Length 841 cm. Lat. 26 5/16 5 Sta. 29 Core No 48 PC.

Total Length 841 cm. Lat. 26 5/16 5 Long 27 22-49 Depth 5933 core of Core condition Excertes T Date Described \$344725 by R 11 5/18 Physiographic location Central Brazilian Satin Lithologic

Detailed Description BTB 4 0 d B REISTOLEME TO B -L a

NOTE,

The piston corer tripped while the corer was being lowered at speed 2, at fourthe usual lowering speed. The effect of this may be manifested in the unusual appearance of the uppermost unit of this core. Because of th high speed of entry, the sediment surface was most probably "blown off" and lost.

SLIGHTLY CALC CLAY AND HIGHLY SILIC CLAY IOTR 64 Light yellowish brown and 3/3 dark brown extensive intermottling of the 2 major colors slightly silty luttee

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d

severely contorted intermixture of the 2 major colors; disturbed looking unit, a very sharp, horizontal contact of the two colors at 49 cm S irregular

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DIATOM OOZE 90-320

Major colors are: 10 YR 8/3 and 7/3 very pale brown, 8/1 white, and 5/2 grayish brown somewhat clumpy, spongy silic malch unit is predominantly brown and grayish brown, 90-130 cm; over this interval the two colors are intermetized-130-320 cm, all major colors plus similar shades are together, usually occuring in 1-2 cm thick layers, and convex upwards, several gray patches occur, 90-130, 166-171, 177, 276, 297-303 - 1 cm vide drying crack at base of unit

S irregular 320-336

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2.5Y 6/2 light brownish gray very faint mottling at lower contact somewhat slick, silty lutite SILIC CLAY WITH DETRITUS

336-365

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- Set D. Est

in texture are noticeable S horizontal DIATOM OOZE 365-625

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Mergraene Borner of Carle Bil con

- 717 -

multicolored, major colors are: 10 YR 6/3 pale brown, 8/3 very pale brown, 8/1 white, and 6/1 light gray somewhat clumpy spongy, silic mulch d d d

d

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VISUAL CORE DESCRIPTION

Poge 2 of

Core No. 48 PC Leg 5 Sto 89 115 Ship CHAIN Cruise

Lithologic

Detailed Description

charcteristics very similar to those of the multicolored unit observed further up core. This unit is composed primarily of 1-2 on that, convex-up laminations. Similar texture troughout, though colors are quite varied. Substantial gray Laminations in this unit.

S irregular 625-644

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2.5% 6/2 light brownlah gray faint mottling 625-634 cm, dark gray UNPOSS CLAY

l om thick concentration of sand sized grains, 640 cm S horizontal firm lutite

UNFOSS CLAY 076-446

d

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d

d

d

several very large inclusions of lower unit, 664-670 cm 10YR 6/4 11ght yellowish brown

firm lutite same sequence of silic mulch, gray unit, then brown unit, as observed higher up in the core S irregular

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SLT

UNPOSS CLAY WITH DETRITUS 670-779

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SLT

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scattered, somewhat hazy mottles throughout, light brown common mottling 760-764 cm dark brown firm silty lutite 10YR 4/3 brown

irregular

SLTO

UNPOSS CLAY WITH DETRITUS

occasional mottles throughout light brown, black specks 10YR 3/3 dark brown

27

347

217

a 51.7

scattered throughout firm silty lutite 875-891 cm core cutter

517

SHEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

UNIOSS CTG
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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Ship CHAIN Cruise 115 Leg 5 Sto. 90 Core No 499 GC. Total Length 141 cm. Lat 25° 17/25' Long 18° 32/8' Depth 5355 car. Total Length 141 cm. Lat 25° 17/25' Long 18° 32/8' Depth 5355 car.  Total Length 141 cm. Lat 25° 17/25' Long 18° 32/8' Depth 5355 car.  Dote Chain 18° 18° 18° 18° 18° 18° 18° 18° 18° 18°	1018 6/3 pale brown one motist lutite S horizontal 2-130 UNPOSS CLAY 1078 3/3 dark brown motist lutite some intermittantly thin patches of pale brown lutite along liner addes, somewhat inclined, 3 cm wide layer of pale brown lutite with black streaks numing thru layers, 108-111 cm, large elongated gray mottle at 9 cm, small,	S, 130-14 UN	10YR 4/3 dark brown 1 large pale brown blotch 129-131 cm moist lutite small pale brown blotches 130-136 cm end of core					
RESTREME TO	<u> </u>	PESTAGENES	ر ع بالسلال		mm	 dum	.hh	.11
	sahuade	T	TI					
	Section of strain of section of s	+ +	++-	++				+
5	E SWOJETO	-	1					
	Seropodes state of the service of th	ם ב	נ					
. 851	S S snatsboosif							
	DANCES (%)	1 5						
48 PG 89 ngth	ABUNDANCES Calebour Care out C	<b>3</b> 5	1					
ا ا	-	5						
Core No Station No Total Core	Shards (S13)	82	82					
Core Stat Tota	Shands shands	2 2	7					
	soriesp solites sol	5 5	ä					
	af cronodules	0 00	t					
	E suitang	8 2	77					
		-	-		-	 		
Ship: <u>Chain</u> Expedition 145 Leg No. 5	SEDIMENT TYPE	silic clay unfoss clay	unfoss clay					
Ship: Expedit	LEVEL	1 cm	152 сш					

SHEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Ship CHAIN Cruise 115 Leg 5 Sta 91 Core No 50 PC

Total Length 173 cm Lat 24º 12.79'S Long 24° 64.37'W Depth 5460 Cose m

Core condition EXCELENT Tre Distribution bescribed 22514 35 by R MCS18R Core No SO PC Central Brazilian Basin Physiographic location Lithologic

Detailed Description

Severe problems were encountered during the coring operation for core 50 PC. Notes from the shiphoard log read, "piston core held for 6 minutes, about I minute after core hit it appears to have fallen over...penetration at the point was 5-10 feet. Gore bent severely at bottom barrel..sample on hand extruded from middle harrel..suspect flow-in in lower bent pipe, not extruded. Two very different lithologic units, an abyssal lutite and a detrital sand, are unusually artended. Two very different lithologic units, an abyssal lutite and a detrital sand, are unusually artended. It appears that the units have been highly altered, and that the sand omits in particular are severely washed. There is some indication of graded bedding in the sand over the length of the entire core. The macroscopic description that follows was done with the above considerations in mind. NOTE: L09 PLEISTOLENE! Born - 04

Biggenous Material
Calcareous Siliceous

norganic Material

ESTIMATED ABUNDANCES (%)

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141

Total Core Length Station No. 90

29 67

Core No.

Expedition 115

Leg No.

Ship: Chain

DETRITAL SAND AND UNFOSS CLAY
10TR 6/3 pale brown (sand) and 3/3 dark brown (lutite)
sand and lutite UNPOSS CLAY
IOVR 3/3 dark brown
common swirls from 2-4 cm light brown
modist intite
some washed sand along very edge of unit
5 tregular DETRITAL SAND 10YR 6/3 pale brown fine and medium sand S irregular 9-53 7-0 6-4 + Top -001 120-00

unusual vertical combination of two distinct lithologies eg. lutite is along one side and and sand along the other S irregular 10TR 6/3 pale brown fine and medutim sand somewhat washed along liner at lower contact CALC 002E 2.57 7/2 light gray extensive mottling throughout, dark brown moist lutite DETRITAL SAND S irregular 69-73 S irregular 69-19 PLENSTRONE BOTTON OF CORE : 113 cm

140

-09

CALC COZE 2.5% 6/2 light brownish gray several small mottles, dark brown and light brown

sabuods straforbas Smoterd Others 01 Discossters pteropods STISSOTONASM 75 82 83 75 Clay Spreds Sections 10 e wicronodules Detrital grains 10 10 10 unfoss clay unfoss clay unfoss clay SEDIMENT calc clay TYPE 1 cm 110 сш 50 cm 140 cm LEVEL

349

Page 2 of 2

91 Core No. 50 PC CHN Cruise 115 Leg 5 Sta. Ship

Detailed Description

Lithologic Log

lutite
very hard, compact nodule of lutite (2 x 3 x 3 cm) at 73 cm
5 irregular
73-173
1078 6/3 pale brown
medium and fine sand
two patches of included lutite blobs, which do not extend to
the liner and appear to be artificially emplaced here; 7385, 126-146 cm, appears to be a general size gradation
end of core

351

SNEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

LEVEL   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   STILL & SAND   STILL &		Expedition	tion 115	1,			Stat	Station No.	0.	91						
TAPE		Leg N					Tota	1 Cor	e Ler	gth		173		E .		
SEDIMENT TYPE  TYPE  TAPE  TAP							EST	IMATE	D ABL	INDAN	CES (	( P				
TYPE  TYPE  TYPE  THE Calc Ooze  The				Ino	Silt		eria?	T		Cale	Biggenous	n	Material	Sil	Siliceous	
m calc coze 4 m calc coze 5 n calc coze 2 n calc coze 2 n det sand 77 shly altered	3	EVEL	SEDIMENT		Micronodules	sətifoəz		Clay	Forams	sfizzotonnsN	pteropods	Discoasters	others	2mots t0	BizefotbeA	
m calc ooze 4 n calc ooze 5 n calc ooze 2 m det sand 77 phy altered			unfoss clay	8	5		2	83	5							
m calc ooze 2 m dec sand 77 phly altered	9	E 0	calc ooze	4	3		4	30	01	28	-	3	15	7		
m det sand 77 phy altered	7	1 cm	calc ooze	5	3		-	26	-	09		Ħ	4			
un det sand 77 ghly altered	1um	de	calc ooze	2	1			10					*88			
highly altered	sa 14	uo o	det sand	77	2			5	10	2	2		2			
	*	highly			X to a g	e; to med unity at the state of	slide of t	one al of a of a me unime unime	cons a treat	have ention	fied fied ear	have been preparent of the second of the sec	santo	red for the sand-situation of the sand-situation of the ord sandpile . Only and its situation of the ord sandpile . Only and sandpile . On the sandp	the gand- of the other of the other ferry	

Ship CHAIN Cruise 115 Leg S Sto. 92 Core No. 51.9C.
Total Length 118 cm. Lat 24" 00055 Long 30" 1040 Depth 5513 safe m.
Care condition EXSELENT Date Described 324475 by R 145-18A
Physiographic location Central Brain Brain Core condition EXC Physiographic location

Detailed Description 0-1 Lithologic LEISOLENE | LOG

SLIGHTLY CALC-SILIC CLAY
2.3% 5/2 grayish brown
faint black horizontal streaking throughout
moist lurite
moist lurite
1-55 10 •

20cm

UNPOSS CLAY

1078 4/3 dark brown
black smeered mortles, 1-15 cm
moist luttle
somewhat vertical, smeared linearions, light brownish gray
15-55 cm possible indication of disturbance
mottled over interval 50-60 cm
55-68

4 9

5

SLIGHLY CALC CLAY/DETRITUS
2.5Y 6/2 light brownish gray
morticled extensively at upper contact, dark brown
motist sliry lutite
mearly hortzontal, thin black microlaminations 60-64 cm
8 stregular 68-104

UNFOSS CLAY

IONE 5/3 brown

screenive mottling 90-96 cm light brownish gray, mottled

at lower contact

modet luttie

modet lutties, smeared lineation, light brownish gray

SG-891 cm, possible indication of disturbance

Sirregular, mottled

0

• 0

100

3

10TR 4/3 dark brown mottled at upper contact motst lutite 113-118 cm core cutter end of core UNFOSS CLAY 104-118

PLEISTONENET

SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

Expedition_	Leg No.				LEVEL	I CB	по 04	58 cm	80 ст	112 сш					1
tion 115	3				SEDIMENT	slightly calc- silic clay	unfoss clay	sl calc clay/	unfoss clay	unfoss clay	* most grains				
1			Ino		[6117190 grafang	80	10	55*	5	00	have s				
			Inorganic	Silt	* selubonoro! M	3	10	4	12	10	s see t				
				Sand	Zeolites						type of				
Stat	Tota	EST	Material	9	Spreds Shards	4	9	2	2	2	f coating		1		
Station No.	Total Core Length	ESTIMATED ABUNDANCES (#)			Clay	83	77	36	81	80	fn8				
9	a rei	D AB			2m6707										
92	ıgth	MDAN	8	2	2 f i 2 2 0 1 0 n n 8 M	1		3							
1		SES (	Biogenous	Calcareous	spodorają										
1	118	-	S	s	Discoasters										
			Material		others	r.									
	E3		[6]	211	emotato	H			tt						
			1.	Stitceous	Radiolaria										

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Spondes

SHEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page / of /

354

 Ship:
 Chain
 Core No.
 52 GC

 Expedition
 115
 Station No.
 94

 Leg No.
 5
 Total Core Length
 116
 Cr

ESTIMATED ABUNDANCES (%)	Biggenous Materia	8	shards  Forams  Nannofossils  Pteropods  Ofscoasters  Others  Others  Sadfolatia	2 81 tr tr	tr 94	15 tr tr	1 92 tr			
	Inorganic Mater	Silt & Sand	Detrital grains Micronodules Zeolites	12 3	4 2	83 2	3			
			SEDIMENT	sl silic clay	unfoss clay	detritus	sl silic clay			
			LEVEL	1 cm	60 сш	106 сш	115 сш			

CORE DESCRIPTION	Cruise 115 Leg 5 Sta. 93 Core No 52 GC.  Cruise Lot 23 56 61'1 Long 31-2 65'N Depth 51794 Law  Exterior Date Described 14 15 by 18 18 18 18 18 18 18 18 18 18 18 18 18	9-24 SLIGHTY SILIC CLAY UNR 3/3 dark brown and dark brownish gray mottling moist slick lutite	24-100 UNFOSS CLAY UNFOSS CLAY UNF 5/3 brown odd verfically oriented pale brown streaking elongated throughout unit moist slick lutite G 100-105	UNPOSS CLAY LOTR 6/3 pale brown fine extensive brown and brownish gray mottling moist slick lutite S	105-107  DETRIUS  DOTR 5/2 grayish brown  stiff compact silty lutite 5 horizontal	SLIGHTY SILIC CLAY ION'S 53 brownish homogeneous motiling throughout moist slick lutite end of core	
VISUAL CO	ength ///	Pelme = 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8	×	Celebrate Coll	52.	

Page Lof L

Ship CHM Cruise 115 Leg 5 Sta 94 Core No 53 GC.
Total Length 117 cm. Lat 23° 49.03'S Long 32° 12.050'D bepth 47.57 Core Condition EXCELENT Date Described 15/47.5 by 8 45° 18.8 Physiographic location Central Grazilian Sasin

0-14 4 Lithologic L09

Detailed Description

SLIGHIM SILIC CALC CIAN
[10078 6/2 grayish brown
common mortling throughout, smeared out, light brownish gray,
one small sand mortle at 12 cm
slightly silty lutte
S irregular
14.17
DETRIUS
2.57 5/2 grayish brown
medium and fine sand
S irregular
17-20

7 50

9

UNPOSS CLAY
2.5Y 6/2 light brownish gray
2.5Y 6/2 light brownish graysh brown, one large elongated
faint mottling throughout, grayish brown
nearly vertical mottle that extends thru entire unit and
into unit below dark grayish brown
slightly silty lutite
mottled, over 3 cm interval

3

20-100
UNPOSS CLAY
UNPOSS CLAY
UNR 4/3 dark brown
slightly silty luttle
numerous thin, black, fuzzy almost horizontal laminations

0

throughout

2.7

100 - 51.7

3 . 5

0

S irregular
UNIOSCIAY WITH DETRITUS
UNIOSCIAY WITH DETRITUS
COMMON Small mottles throughout, light brown
slightly slity lutite
98-100, 105-106 cm, patches with numerous black specks
end of core

THENDRENE STATE OF COME : 117cm

357

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 53 GC Station No. 94 Expedition 115 Ship: Chain

Total Core Length 117

Leg No. 5

E

		•	l ou l	100	4	EST	ESTIMATED ABUNDANCES (*)	D ABL	JNDANC	ES (	(H	1	3			-
Δ,				Silt	Silt & Sand	9	T		Cal	Calcareous	lcareous Services	9	Sil	Siliceous	SI	-
アレコン	LEVEL	SEDIMENT	Detrital Safang	Micronodules	Zeolítes	Volcanic shards	Clay	Forams	2 fizzo tonne M	Pteropods	Discoasters	others	2 mode i O	SinslotbeA	sabuods	
	l cm	sl silic cale	15	2		2	70		-			2	2	5	3	1 .
4	15 cm	detritus	7.5	3		3	9	2	2		ä	2	-		3	-
2	50 cm	unfoss clay	15	5		2	73					ä		t	Ţ,	L.
6	116 сш	untoss clay with det	25	3		3	65					ב	b	5	-	1
-																
																-
1																-
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John LAN Cruise 115 Leg 5 Sta. 75 Core No. 54 ac. Core no. 54 ac. Core condition 128 cm. Lat. 23° 3127's Long 35° 1555'w Depth 4153 cm. Care condition 4154/bet. Dote Described 11 Nov. 75 by A farmer Physiographic location Construction. Rise and Rise ac. Rise Ac. Janeire.

Thologic 007

PLENSINGNE 1 -

Detailed Description

0-118

CALC OOZE WITH IAMINATIONS OF PYRITE-RICH UNFOSSILITEROS CLAY

10 YR 5/3 brown (0-17 cm), 10 YR 6/3 pale brown at 20 cm
grades slowly to 10 YR 5/4 pellow brown (30-66 cm),
and back to pale brown by ~90 cm
and back to pale brown by ~90 cm
2-3 mm dark brown discontinuous streaks common (0-5 cm);
they are similar to laminate below and were probably
disturbed as core entered sedament: 7 cm - small dark
brown clast of slick lutite: thin streaks, subtle
laminations, and a tew pale brown motites are present
from 20-45 cm; below this, only the laminations are
present, varying from <1 mm to 5 cm (66-71 cm) and
irregularly spaced; laminations are 10 YR 4/2, dark
grayish brown slick lutite
whole core is a slick lutite with very few forams except
17-20 cm; dark brown (10 YR 4/3) silt with sharp bottom contact - top 7 cm of core have scattered forams

1

Sation of core: 118

3 REGIOGENE

359

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Exper	Leg No.			LEVEL		1	89	911								
Expedition 119	No. 5			SEDIMENT		calc ooze	unfoss. clay	calc ooze								
1	1				н н н лтэо	-	15	L								
			Inor	Suitang		6	5	5	+							1
			Inorganic	salubo	Micron	ä	1		1		1					
			Mate	S a	liloə2		1		T							-
Stat	Tota	EST	Material	spaeds	Volcar	2	-	-								
Station No.	1 00	IMAT		Κe	10	20	78	20								-
No.	Total Core Length	ED AB		Sm6.	FOT	13										
9.5	ngth	ESTIMATED ABUNDANCES (#)	8	streso	ounsk	69		3								
		ES (	oden	spor	pterop											
1	118	96	ons .	Systems	biscos	ä		5								
			Biogenous Material		Ofhers	3		7								
	5		191	5 SI	noterd	t	11	1								
				5176	Fedro	red	5	2								
			1	5 5176	Sponge	1 2	tr tr	11	+	+	1	1				-

Lot 23:2145'S Long 31'e4 66 W Depth 3948ment VI Dote Described 16415 by 3 8144 ALT LONG 1844 ALT DO 3 8144 ALT DO EXCELLENT Cruise 115 Physiographic location Total Length 195 Core condition

Detailed Description CALC OOZE 7 3 T

Lithologic

MUNENE

IOTR 6/4 light yellowish brown grades to 6/3 pale bm.ym. common small light brown and brownish gray mottling throughout moist slightly slity lutite with forams scattered irregularly throughout S textural.

DETRITUS

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8

T

\$

107R 5/2 gapyish brown fine micro laminations throughout; one thick I cm wide dark brown lamination dominates unit at 24 cm bety moist zone of nearly pure silt; fairly homogeneous throughout, no grading apparent 5 inclined 10° 5 inclined 10° 

CALC 002E

107R 6/2 light brownish gray grades to 6/3 pale brown
common faint light yellowish brown and very pale brown
monthing throughout
moist very slightly silty lutite with a few forams scattered
throughout

S inclined 15°
92-100

مد مردود

LEAMENE

57

1

CALC 002E a few first gray a few faint gray hazy micro laminae throughout mousts slightly silty lutite with a couple forams end of core

SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

7 t Biogenous Material
Calcareous Siliceous BinslotbeA 3 5 3 Others Discoasters ESTIMATED ABUNDANCES (%) Total Core Length 105 preropods Core No. 55 GC 96 35 25 sfissofonnsM Station No. 3 3 7 Forams 10 55 07 Clay Inorganic Material Silt & Sand Sprantc Zeolites 10 H 25 Micronodules Detrital 85 2 4 with Mn micros 115 SEDIMENT calc ooze calc ooze calc ooze detritus TYPE Ship: Chain Expedition Leg No. ₩ 96 104 cm 1 cm 40 OH LEVEL 22 cm

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Page 1 of 1

Ship CHANN Cruise 115 Leg \$ Sta 98 Core No 57 GC.
Total Length 105 cm. Lat 33° 058'S Long 40° 0811' W Depth 2535 core.

Core condition EXCELLENT Date Described 243WESS by & NY 918.0

2.5% 6/2 light brownish gray scattered small mottles throughout, gray firm silty lutite several small patches and layers of high-foram concentrations G Detailed Description 0-25 REHIDENE TO T Lithologic L09 30cm

25-36
CALC OOZE
7.5Y 5/4 brown
common small mottles throughout, light brown
fitum silty luttle
several small pockets of high-foram concentration
G

36-63 (ALC DOZE SY PARTS OF STATE OF ST 54.

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S hotionial
53-86

CLC ONZE GRADES TO DETRITUS
5X 5/2 olive gray
occasional black specks throughout
firm lutite grades to silt;
two graded beds within unit 63-74, 74-86 cm, sandy layer
trom 85-86 cm, some small shells contained in Layer
86-105

404 514

F 901

REHIDINE

120-

5% 6/1 gray cocasional black specks throughout firm silty lutite true 1 cm wide, brown laminations, inclined 40° at 90, 94 cm S end of core CALC OOZE

## SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

				sons	sabuods	Ħ	-	T.	b	E	
		E .		Siliceous	smoteta strefotbe8						
				Material	0thers	10	10	10	2	5	
	1	105	26	S	Discoasters	Ħ		tr		ä	
S			CES (	Biggenous	sboqoraiq	80	5	00		4	
57 GC	98	gth	MDAN	Cal	2[1220]onn6N	20	14	æ	2	30	
	0.	Total Core Length	ESTIMATED ABUNDANCES (%)		Forams	10	15	10	10	2	
Core No.	Station No.	1 Co	IMAT		Clay	7,	0.4	3	2	37	
Con	Stat	Tota	EST	Inorganic Material Silt & Sand	Volcanic sbands	1	1	~	2	2	
				& San	Zeo1†tes						
			1	Silt	Micronodules	2	7	2	2	2	
	1			Ino	Detrital Smissy	5	10	5	80	15	
Chain	ition 115	9.			SEDIMENT TYPE	calc ooze	calc ooze	calc ooze	detritus	calc ooze	
Ship:	Expedition	Leg No.			LEVEL	1 cm	30 ст	50 cm	85 ст	104 cm	

Page 1 of 1

Ship CHANN Cruise 115 Leg 5 Sta 99 Core No 58 GC.
Total Length 45 cm Lat 24º 16.79'S Long 411" 3799'W Depth 1922 CABB m
Core condition Excessent Date Described 23.3404875 y R 4º 6.18.R
Physiographic location Contracted Stage of Rio de Janeire

CALC GOZE SY 5/2 olive gray scattered faint mottles throughout, light brownish gray firm moist lutite G mottled Detailed Description 0-1 10 Lithologic 0 THIMME 1 Lwigi

CALC GOZE 2.5% 6/2 light brownish gray scattered mottling throughout brownish gray, common 24-34 cm

10

20 7

10

30

State approximate little lutite
2 approximately horizontal, fuzzy, dark laminations at 15 and
2 and
34-45
ALE CORE
5 % 5/2 olive gray
scattered morthing throughout, gray
firm worst than rest of core; 40-45 cm core cutter
end of core

RESTABLE - Bottom of cooke 45 cm

00

10 7

365

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

58 GC Station No. 99 Core No. Expedition 115 Ship: Chain

07 Total Core Length

Leg No.

-	Biogenous Material	ceous		Sponges		
-	19	Sil		2 moteria	emots id	emo 16 i O
-	Mater			Others	5 Others	27 Sthers
ESTITIVIED ABONDANCES (*)	Snor	Sno	219326003	10	10	10
	ioger	Calcareous	spoqona;	1	-	
	8	Cal	sitssotonasi		13	15
-			Forams	Ì	15	15
1			Clay		07	40
	erial	D	shaeds	1	-	1 2
	Inorganic Material	San	Zeolites			
	gani	ilt	Micronodules			2
	Inor	S	Detrital grains		10	10
			SEDIMENT		calc ooze	calc ooze
			LEVEL	1 cm	-	20 cm

Name

VISUAL CORE DESCRIPTION

Page 1 of 2

HIY CALC CLAY

10YR 6/3 pale brown grades to 5/3 brown
10YR 6/3 pale brown grades to 5/3 brown
10YR 6/3 pale brown grades to 5/4 it yellowish brown, extensive
10 mottling at basal contact
1 cm diameter spherical, v. moist almost soupy lutte
10 with scattered forsms
10 movement struck and penetrated at 50 cm
10 movement of mottled
10 mottled
10 mottled
11 movement of mottle of mottled
12 mottled
13 movement of mottled
14 movement of mottled
15 movement of mottled
16 mottled
17 movement of mottled
18 movement of mottled
18 movement of mottled
19 m SL CALC CLAY
SY 5/3 olive, 2.5Y 4/2 dk grayish brown
common matbling in the olive portion of the unit with 2.5Y 4/4
olive brown 2.37 6/2 1t brownish gray
a number of various inclusions appear, 1. 2x3 cm smooth mottle
1078 6/2 cluve, 2. a few scattered white lithified modules
700 cm 3. one v. large 6 cm x 5 cm lithified lutife lump
spanning 70 fo f liner width (unfoss clay with pyrite)
firm moist lutite, abund. forems
disturbance filow in is suspect) in this unit with no continuous
features and an assortment of unusual inclusions
5, 10 SI CALC CLAY
2.37 6/2 Lt brownish gray
2.37 6/2 Lt brownish gray
shadowy black mottling 40-529 cm, v. delicate in places, common
gray mottling 441-470 cm
firm smooth luttle with a few forams
firm smooth luttle with a few forams
fith (2 mm) black lamination at bottom contact
5, If 5 firm smooth lutite, a few black flecks scattered peculiar interlocking arrangement of two different lithologies suggest some disturbance in this section of the core. S concave upward 651-720 2.37 3/2 grayish brown to 6/2 it brownish gray fains a motifing at motified throughout ant, scattered black fleck (Hm marro?) and some brown found overall moist firmer lutite with occasional small bits of lithified lutifie and a few scattered forms 5, I 15° Ship CHN Cruise 115 Leg 6 Sta. 192 Core No 597C.
Total Length 753 cm. Lat 29'208'S Long 40'058'W Depth 418 m.Core
Core condition Extended

Date Described 67W15 by 1.8REDA

Physiographic location WESTERN VEMA: CHANNEL: Detailed Description CALC OOZE 441-529 REINKENE LOG 10 00000 404 10 1 181 1 1 0 1 0 Lithologic + 9 8 T 7 1 1

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Page 2 of 2 Core No. SAFL 107 Leg 6 Sta VISUAL CORE DESCRIPTION 367 Cruise 115 Ship CHN

HIX CALC CLAY
5 Y 6/2 light olive gray
scattered dk olive specks 720-723 cm
firm smooth lutite
small 1 cm diameter erratic at upper contact
end of core Detailed Description 720-753 Lithologic

1

3

1

CORES
SEDIMENT
W.H.0.1.
*
DESCRIPTIONS
SLIDE
SMEAR

Page 1 of 1

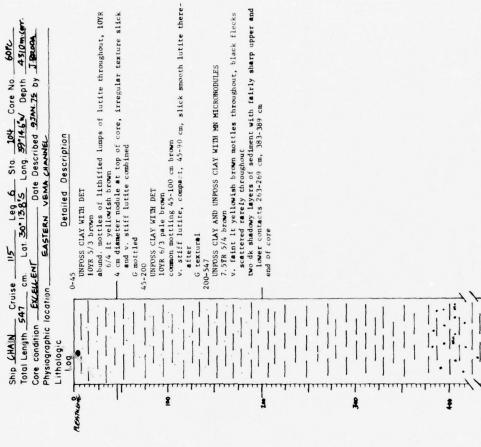
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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Con calc coze 3 Detriced greating STIT & Sand Coze 2 Micromodules 10 5 2 Micromodules Sand Coze	Leg No.	No. 6				Tota	Total Core Length	e Ler	ngth		25		E		
SEDIMENT  TYPE  Calc cook  Calc c						EST	IMATE	D ABL	JNDANC	ES (	96				
SEDIMENT  Calc coze  C			Ino	rgani	Mat	erial			9	oden	ous M	ateri	ام		
SE DIMENT  Colored  C				Silt	S San	9			Calc	areo	Sn		Sil	iceou	57
cm calc ooze 3 2 58 7 25 cm calc ooze 10 5 55 15 10	VEL	SEDIMENT		Micronodules	2eolites	Volcantc	Clay	Forams	21i220ionneN	pteropods	Discoasters	sua410	Smotsia	sinsloibsA	Spondes
cm calc ooze 10 5 55 15 10		calc ooze	3	2			58	7	25			2			
	51 cm	calc ooze	10	2	1		55	15	10			2			
											T				

371 VISUAL CORE DESCRIPTION

Page 1 of 2



end of core

PLHSPUENE 550-

200

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

36-50 0-36 Physiographic location 91 0 8 10 0 and of cone 13 13 3 0 0 101 Lithologic 0 10 G 0 B Ø 7 711 T' T' Oa PLEASTOCEME! ռատարահարհարակատարա PLEISTUENE 8 sabuods Biggenous Material Radiolaria EO Ciatoms 549410 547 Discoasters ESTIMATED ABUNDANCES (%) pteropods Total Core Length 50 PC 104 sfissofonnsN Station No. tr t Ħ Forams 20 Core No. 90 85 80 72 80 87 80 Clay Inorganic Material Silt & Sand Volcanic ä t, tr satiloaz 17 20 15 07 Micronodules 3 9 2 15 25 10 10 10 15 10 Detrital with Mn micro 115 unfoss clay with Mn micro with det unfoss clay with det unfoss clay unfoss clay unfoss clay unfoss clay unfoss clay unfoss clay SEDIMENT with det Chain TYPE Expedition Ship: Leg No. 5 cm 386 сш 60 cm 360 cm 460 cm LEVEL CB 160 cm 260 cm 946

VISUAL CORE DESCRIPTION

Poge 1 of 1

Ship CHAIN Cruise 115 Leg 6 Sto. 104 Core No. 4076—
Total Length 65 cm. Lat. 30°15.65 Long. 39°14.64 Depth 4310m.ter
Core condition EXLECTENT Date Described 23MNJS by TOROGA. EASTERN VEMA CHANNEL

Note: due to sharp contacts and non-continuous lithology it appears evident that this pilot core represents a multiple penetration recovery. (1st penetration 0.50 cm, rebound penetration 50-85 cm). Detailed Description

107R 5/4 yellowish brown extensive lithified mortles pale brown and grayish brown extensive lithified wortles firm moist lutile with lithified lumps G mottled HLY CALC CLAY GRADES TO UNPOSS CLAY

10YR 7/4 v. pale brown extensive textural and color distinctive mottling, It yellowish UNFOSS CLAY

firm compact lutite, sl silty 5, 1 50-77

UNFOSS CLAY

10%R 5/4 yellowish brown numerous lithified mottles throughout, pale brown moist lutite not as firm as above

G mottled

UNPOSS CLAY
107R 6/4 1t yellowish brown
extensive mottling at upper contact with yellowish brown
firm compact lutite
end of core

116

SPEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 2

Cruise II5 Leg 6 Sta 105 Core No GIPC  EXCELLENT  Botto Described 103M 15 by 3: PROPA.  Calc move cappes to St. Still Clay	10YR 5/3 brown extensive v. nale brown motiling 32-42 cm. excellent v. nale	brown burrow extending 24-30 cm moist elick lutite a fou forance centered 0.20 cm	two wide shadowy micro module (Mn) rich layers 86-96, 102-108 cm 108-30. SL SILIC CLAY GRADES TO CALC GOZE TO SL SILIC CLAY WITH MY MICRO TO SL SILIC CLAY 10YR 6/2 It brownish gray faint scattered agailsh brown mottling throughout unit moist slick luttle, homogeneous texture throughout unit wide Mn micro module rich band 339-353 cm, scattered wusty flecks	350-510 OPEN CENTER OF STATE OFFICE	LONE COME Grants ID HIGHLY CAN. LONE SAME brown grades to 5/3 brown	brann morting scattered intoughout mostly it yellowish brown and v. pale brown	463-471 cm and two faint 280-285 cm, 489-493 cm Mn-rich bands (laminantons)	\$10-749 SL SLIC CLAY GRADES TO CALC 002E SL SLILE CLAY GRADES TO CALC 002E (OVR 6/3 male brown oracles to 6/4 it wellowish brown to 7/4	v. pale brown extensive mottling 10YR 8/3 v. pale brown, 552-557 cm al shadowy	darkening 590-bild om and faint brown mottling be0-749 cm scattered forams appear at 690 cm and to 745 cm	749-760 UNPOSS CLAY/AN MICRO	10YR 3/1 v. dk gray some marbling with pale brown throughout	S. M. Fich incide with scattered lithing incides 1. 250-819	UNFOSS CLAY 2.5% 5/4 It olive brown grades to 2.5% 5/2 gravish brown	slit gray mottling 785-800 cm stiff compact lutte at ( 2 cm wide) upper contact firm slick	lutite from there to base two this well-lithified, almost dry, concave-upward lams 2 mm.	780 and 795 cm				
Ship CHAN Cruise Total Length 819 c Core condition EXAL Physiographic location Lithologic Log	1 1 1	181	1 1 1 1 1		1 1 1	171	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	8		- 0	101		101	11	1 1 1	1 1 1	1 1	1 . 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	111111	1 1 1
Core No. 60 PG. Station No. 104 Total Core Length 85	ESTIMATED ABUNDANCES (#)	Gerial Biogenous Material	Forams Namofessils Pteropods Discossiers  Others	75 6 15	93	82	28			,											
Ship: Chain Expedition 115 Leg No. 6		Inorganic Material	SEDIMENT TYPE STATES SHAPE SHA	om hly calc clay 3 1	49 cm unfoss clay 7 tr	cm unfoss clay 6 12	cm unfoss clay 12 3														

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 2 of 2

VISUAL CORE DESCRIPTION

Ship CHAIN Cruise 115

Leg 6 Sto 105 Core No. 61PC

Core No. 61 PC

Ship: Chain

1 cm calc ooze   2 cm		Leg No.				Tota	Total Core Length	e Lei	ngth	00	618		Cm		
Trype   SEDIMENT   Single mouse   Sedimentarial   Single mouse   Sedimentarial   Single mouse						EST	IMATE	D AB	UNDANG		98				
SEDIMENT			Ino	Silt	& San	erial			Cal	careo	vo!	ateri	Sil	ceo	73
cm calc coze 2 tr 35 15 45 tr 3  cm s1 silic clay 5 10 4 78  cm calc coze 2 2 48 7 35 2  cm vith Ma micro 3 15 1 79  cm calc coze 3 15 1 79  cm calc coze 3 tr 2 94  cm calc coze 3 tr 7 2 94  cm calc coze 3 tr 7 70 20  cm calc coze 3 tr 7 70 20  cm calc coze 3 tr 7 70 20  cm calc coze 3 tr 7 79  cm calc coze 3 tr 7 70 20  cm calc coze 3 tr 7 7 70 20  cm calc coze 3 tr 7 7 70 20  cm calc coze 3 tr 7 7 7 70 20  cm calc coze 3 tr 7 7 7 7 7 7 7 7 7  cm calc coze 3 tr 7 7 7 7 7 7 7 7  cm calc coze 3 tr 7 7 7 7 7 7 7  cm calc coze 1 5 48 5 50  cm mioss clay 5 tr 7 95  cm mioss clay 5 tr 95  cz 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	רנאנו	SEDIMENT			Sel 1 [0eZ		Clay	2m6n07	s f i s s o i o n n s N	Pteropods	Discoasters	Others	2mo16fQ	e tre fotbes	
cm si silite clay 5 10 4 78 tr  cm calc ooze 2 2 48 7 35 2  cm vith Mn micro 3 15 1 79 7 15  cm calc ooze 3 tr 2 94 tr 2  cm calc ooze 3 tr 7 0 20  cm hly calc clay tr 10 tr 70 20  cm calc ooze 3 tr 94 tr 10 tr 70  cm calc ooze 3 tr 94 tr 10 tr 70  cm calc ooze 3 tr 94 tr 10 tr 70  cm calc ooze 3 tr 94 tr 10 tr 70  cm calc ooze 3 tr 10 tr 70 20  cm calc ooze 3 tr 10 tr 70 20  cm unfoss clay 2 tr 95 1 tr 1  cm calc ooze 3 tr 94 tr 10 tr 10  cm unfoss clay 5 tr 95 tr 10  cm unfoss clay 5 tr 95 tr 10  cm unfoss clay 7 tr 10 tr 10  cm unfoss clay 10  cm unfoss clay 10		celc oore	2	5			35	15	45		Ħ	6	ä		
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cm sl silic clay 2 tr 2 94 tr 2  cm sl silic clay 2 tr 2 94 tr 2  cm calc coze 3 tr 70 20 tr 2  cm bly calc clay tr 10 tr 70 20  cm calc coze 3 tr tr 94 tr 11  cm calc coze 3 tr 7 1 46 3 45 tr 1  cm calc coze 3 tr 7 9 50  cm bly calc clay 5 tr 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	200 cm	calc oore	~			2	87	7	35			7	0		
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unfoss clay 2 48 50 cm unfoss clay 5 tr 95 tr		calc oose	6	=======================================		-	94		45			2	2		
cm unfoss clay 5 tr 95 tr		unfoss clay/ Mn micro	2	84			20								
	818 cm	unfoss clay	2	Ħ			95		Ħ			5			
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Detailed Description					
Lithologic Log			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	and of the	
	8.	3	2 3	ALLITCH	æ

Ship CAAIN Cruise 115 Leg 6 Sta 105 Core No 61P6

Total Length 151 cm. Lat 30' 155's Long 39'05\$W Depth 4181 inverrecore condition EXCELLENT Date Described 137N 5 by 3.8809A.

Physiographic location EASTERN VENA CHANNEL

Detailed Description Lithologic RESTORME

Note: Due to artificial sharp contacts and repetitive lithology, it appears that this pilot core represents a multiple penetration recovery: lst, 0-72 cm; 2nd, 77-118.5 cm; 3nd, 118.5-151 cm. Also the very surface sediment has been lost (pushed) out of the top of the corer and neither of the two reperetrations have recovered this surface interval. This resulted from resistance offered by the mud already in the liner before repenetration. It tooks once persuasion to get the initial sample to move and allow entry of new sediments, by which time the corer was already below the sediments. 

T

CALC 002E 10YR 6/4 It yellowsh brown common v. pale brown mottling smooth moist lutite S mottled

111

T

hary bands of Mm micro module rich sediment 6-18, 41-58 cm  $\rm S_{\star}$  I 10YR 5/2 grayish brown grades to 6/3 pale brown faint bands of brown mottling slick lutite CALC CLAY 14 10

3

77-85

HLY CALC CLAY
10YR 5/2 grayish brown grades to 6/3 pale brown
v. sl faint brown bands and mottling
smooth luttle
2 cm band of Mn nodule rich lutite 105-107 SL SILIC CIAY 10YR 6/4 It yellowish brown brown sl mottling and marbling smooth lutite 8 1 1 1

101

T

1

40

St CALC CLAY 1078 64 it yellowish brown faint inclined bending (brown) and mottling smooth lutite 118.5-138 138-151

media

7

10VR 5/2 grayish faint grayish brown bending found al throughout slick al silty lutite HLY CALC CLAY end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Total Core Length 151 Core No. 61 PG Station No. 105 Expedition 115 Ship: Chein Leg No. 6

		ST	Sabuads	H	-	2	2	7		
		Siliceous	SirsforbsA							
	, e	511	2mots f0	۵	-	2	2	-	2	
	Material		others	3	2	5	6	7	2	
94		1	Discoasters	~				2		
ES (	Biogenous	Calcareous	pteropods							
ESTIMATED ABUNDANCES (%)	.8	Calc	sfissofonns/	50	7		20	2	12	
D ABL			Forams	5			ä	Ħ	b l	
IMATE			Clay	33	82	86	99	86	13	
EST	Material	q	Volcanic			2	2	2	v	
	Mat	Sand	sətifoəz							
	rgani	Silt &	Micronodules	3	2	ב	Ħ	1	8	
	Ino		Detrital Smissins	5	5	5	2	5	7	
		1 1	SEDIMENT	calc ooze	celc clay	sl silic clay	hly calc clay	118.5 cm sl celc clay	hly cale clay	
			LEVEL	1 cm	77 cm	78 cm	117.5 сш	118.5 сш	150 cm	

Core No. 62R Page 2 of 2 Detailed Description 901 Leg 6 Sta VISUAL CORE DESCRIPTION Ship CHMIN Cruise 115 1 end of une Lithologic + 4. 1 1 101 1 8 Nones il الله 6 Pliouene 591-712
UNPOSS CLAY
7.5YR 5/4 brown
sl dk gray mottles decreasing with depth disappearing at 620 cm
firm compect lutite with a silry texture
Mn.rich sindowing at upper contact of unit
end of core 7.5KR 5/4 brown speckles and pockets of v. dk gray (Mn) totally lithified pavement perfectly penetrated by piston core 2mm Mn pavement in upper surface of lithified plug 5 irregular smooth slick lutite some signs of disturbance (flow in) 573-579 cm no doubt due to resistance offered by above plug. undisturbed (interval) recovery continues 579-712 cm CALC 002E
10TR 6/4 It yellowish brown grades to 5/4 brown
varying degrees; albut mostly common mottling throughout
brown and v. pale brown with scattered black flecks
forems abund. 0-300 cm; common 300-565 cm, firm compact lutite Ship CHN Cruise 115 Leg 6 Sta 106 Core No. 62FC

Total Length 712 cm. Lat 30\*246'S Long 38'34'V Depth 4065m.em.

Care condition EXELLENT Date Described 137M/75 by 7.8800A

Physiographic locaffon EASTERN VEMA CHANNEL. UNPOSS CLAY
10YR 4/3 dk brown
two vertical fans of drier 10YR 4/2 dk grayish brown lutite
(disturbed) Page 1 of 2 Detailed Description VISUAL CORE DESCRIPTION SL CALC CLAY 0-565 Physiographic locaffon 0,01 101 1 010 to 181 10101 10 Core condition \_ 9 B 1 10 1 0 18 1 18 13 Lithologic 9 40 181 F00 8 0 0 T 3 į 205

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

JT Date Described 13.1ANIS by J. BRODA	Delinted Description		CALC OOZE 10VR 6/4 it vellowish brown	common it brownish gray and v. pale brown mottling	abund. forams throughout, moist lutite S, H	-148 (ALL OOZE.  10YR 6/3 pale brown grades to 5/4 brown common pale brown mottling 120-125 cm, 135-148 cm abund. Forems in molat silty lutite end of core contact autre of the contact mentioned above, and the similarity of sequences of 14ph-	logic features in this core, repenetration (pilot rebound) is susnered let monetration (1106 m.	in this case some of the near surface sediment has been shot out the ton of the corer and lost, 2nd	penetration, 106-148 cm - in this section the top 30 cm of sediment is preserved													
Physiographic location	Lithologic	gentreme 1 0-106	10	+	25 H S, H	105-148 105-148 107R 6/3 pa)	10	10.	1 1	16	1	3	1	100	Mershene -	1 Carlo Carl	<b>1</b> ,	т.	 	ф.	 	T
					sn	səbuod <b>s</b>																I
		E			iliceous	Radiolaria																
		<b>E</b> 5		rial	Siliceous	sinofaid Sinsfoibs8	t.	tt.						ŢŢ.								
		712 cm		Material	Siliceous	others shotefd strefotbe8	°	5 tr	3	2	2 3	2	0 3	4		2						
,	1	1	(%)	nous Material		sinofaid Sinsfoibs8			1 3	3 2	12 3		20 3	-		2	-					
S)	90	7112	NCES (%)	Biogenous Material		Pteropods  2195co25fg  2196cers  229cers  229cers  229cers  229cers	1 3	2	1	3	12	15 5	20	7 11	ů.	2	1					
62 PC	106	7112	BUNDANCES (%)	Biggenous Material	Calcareous Siliceous	Discoasters Others Diatoms Radiolasia	55 1 3		70 1			2		4	נג	2	-					
İ	No.	7112	TED ABUNDANCES (%)	Biogenous Material		smerod solvostis pteropods solvosters others others solvosters solvosters solvosters solvosters	15 55 1 3	5 75 5	10 70 1	5 60 3	5 65 12	3 65 15 5	2 60 20	tr tr 4		2						
İ	No.	7112	TIMATED ABUNDANCES (%)	Biogenous Materia	Calcareous	Forams Nannofossils Pteropods Discossiers Others Distoms	55 1 3	75 5	70 1	60 3	65 12	65 15 5	60 20	7 11	84 tr	2	1					
Core No. 62 PC	-	1	ESTIMATED ABUNDANCES (%)	Biogenous Materia	Calcareous	smerod solvostis pteropods solvosters others others solvosters solvosters solvosters solvosters	15 55 1 3	5 75 5	10 70 1	5 60 3	5 65 12	3 65 15 5	2 60 20	tr tr 4		82						
İ	No.	7112	ESTIMATED ABUNDANCES (%)	Biogenous Materia	Calcareous	Shards Clay Forams Namofossils Pteropods Discoasters Others Discoms	15 55 1 3	5 75 5	10 70 1	5 60 3	5 65 12	3 65 15 5	2 60 20	89 tr tr 4								
İ	No.	7112	ESTIMATED ABUNDANCES (%)	Biogenous Materia	Calcareous	Volcanic Shands Clay Forams Nannofossils Pteropods Discoasters Others Discoms	15 55 1 3	5 75 5	10 70 1	5 60 3	5 65 12	3 65 15 5	2 60 20	89 tr tr 4	84	82	80					
İ	No.	7112	ESTIMATED ABUNDANCES (%)	Inorganic Material Biggenous Material	Calcareous	grains Micronodules Zeolites Volcanic Shards Clay Nannofossils Pteropods Officers Officers Officers Pteropods	tr 21 15 55 1 3	4 9 5 75 5	3 10 10 70 1	5 25 5 60 3	3 11 5 65 12	1 11 3 65 15 5	3 12 2 60 20	1 89 tr tr	8 tr 84	3 8 82	2 12 80					
İ	No.	7112	ESTIMATED ABUNDANCES (%)	Biogenous Materia	Calcareous	Micronodules Zeolites Volcanic Shards Clay Forams Namofossils Pteropods Discoasters Others Distoms	21 15 55 1 3	9 5 75 5	1 02 01 01	25 5 60 3	11 5 65 12	11 3 65 15 5	c ooze tr 3 12 2 60 20	89 tr tr 4	tr 84	8 82	12 80					

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core
Core No.
62
62 PG
-04
lotal Length 617 cm Care condition EXCEL Physiographic location
EXCELLENT Date Described 111M15 by Cation NORTH FLANK OF PROGRANDE RISE

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Leg 6 Sta 19 Core No. 64PC

Page 2 of 2

386 VISUAL CORE DESCRIPTION

Ship CHAIN Cruise 115

Type	1000   1000	1000   1000	100   100	Expedit	Expedition 115	1			Stat	Station No.	9	3	108	1 %				
Inorganic Meterial   Silf & Sand   Sand   Silf & Sand	100   100	Inorganic Meterial   Silf & South   South	Inorganic Meterial   Inorgan	יפו אס	1				FST	IMATE	9 Le	UNDANG	ES	70 (14		E .		
11   12   13   14   15   15   15   15   15   15   15	11   12   13   14   15   15   15   15   15   15   15	1   1   1   1   1   1   1   1   1   1	11	-		Ino	rgani	C Mat	17			80	oger	52	ateri	9		
1	1	1	1				Silt	& Sar	P.			Cal	care	Sno	Т	Sil	ceo	
ooze         tr         tr         20         20         55         2         3           ooze         1         14         13         60         12         tr           ooze         tr         25         10         40         10         15           core         tr         20         8         50         10         12           ooze         1         16         8         50         15         10           cose         tr         tr         tr         12         8         60         15         8           cooze         tr         tr         tr         10         60         15         5	ooze         tr         tr         20         20         55         2         3           ooze         1         14         13         60         12         tr           ooze         tr         25         10         40         10         15           ooze         tr         20         8         50         10         12           ooze         1         16         8         50         15         10           ooze         1         23         6         50         12         8           ooze         tr         tr         tr         10         60         15         5           ooze         tr         tr         tr         10         60         15         5	ooze         tr         tr         20         20         55         2         3           ooze         1         14         13         60         12         tr           ooze         tr         25         10         40         10         15           core         tr         20         8         50         10         12           ooze         1         16         8         50         15         10           core         tr         tr         tr         12         8         60         15         8           cooze         tr         tr         tr         10         60         15         5	ooze         tr         tr         20         20         55         2         3           ooze         1         14         13         60         12         tr           ooze         tr         25         10         40         10         15           ooze         tr         20         8         50         10         12           ooze         1         6         8         50         15         10           ooze         1         12         8         60         15         10           ooze         tr         tr         tr         10         60         15         5		SEDIMENT		Micronodules	2eolites		Clay	2m6707	2[izzo]onn5N	pteropods	Discoasters	Others	2mots to	SinsfolbsA	
oore         1         14         13         60         12         tr           oore         tr         25         10         40         10         15           oore         tr         20         8         50         10         12           oore         1         16         8         50         15         10           oore         1         1         23         6         50         12         8           oore         tr         tr         tr         tr         10         10         60         15         5           oore         tr         tr         tr         10         10         60         15         5	ooze         1         14         13         60         12         tr           ooze         tr         25         10         40         10         6           ooze         tr         20         8         50         10         12           ooze         1         16         8         50         15         10           ooze         1         23         6         50         15         10           ooze         tr         tr         tr         10         60         15         5           ooze         tr         tr         tr         10         60         15         5	oore         1         14         13         60         12         tr           oore         tr         25         10         40         10         15           oore         tr         20         8         50         10         12           oore         1         16         8         50         15         10           oore         1         1         23         6         50         12         8           oore         tr         tr         tr         11         8         60         15         5           oore         tr         tr         tr         10         10         60         15         5	ooze         1         14         13         60         12         tr           ooze         tr         25         10         40         10         6           ooze         tr         20         8         50         10         12           ooze         1         16         8         50         15         10           ooze         tr         tr         tr         12         8         60         15         10           ooze         tr         tr         tr         10         10         60         15         5		calc ooze	Ħ			Ħ	20	20	55		2	3	Ħ		
oore         2         30         12         40         10         6           oore         tr         25         10         40         10         15           oore         tr         20         8         50         10         12           oore         1         16         8         50         15         10           oore         1         23         6         50         15         8           oore         tr         tr         tr         10         60         15         5           oore         tr         tr         10         10         60         15         5	ooze         2         30         12         40         10         6           cooze         tr         25         10         40         10         15           cooze         tr         20         8         50         15         10           cooze         1         16         8         50         15         10           cooze         1         23         6         50         15         8           cooze         tr         tr         tr         10         10         60         15         5	oore         2         30         12         40         10         6           core         tr         25         10         40         10         15           core         tr         20         8         50         10         12           core         1         16         8         50         15         10           core         1         23         6         50         12         8           coore         tr         tr         10         10         60         15         5           coore         tr         tr         10         10         60         15         5	ooze         2         30         12         40         10         6           cooze         tr         25         10         40         10         15           cooze         1         16         8         50         15         10           cooze         1         16         8         50         15         10           cooze         1         23         6         50         15         8           cooze         tr         tr         tr         10         60         15         5           cooze         tr         tr         tr         10         60         15         5		calc ooze	-				14		09		12	ħ	Ħ		-
oore         tr         25         10         40         10           oore         tr         20         8         50         10           oore         1         16         8         50         15           oore         1         23         6         50         15           oore         tr         tr         12         8         60         15           oore         tr         tr         12         8         60         15           oore         tr         tr         10         10         60         15	core         tr         25         10         40         10           core         tr         20         8         50         10           core         1         16         8         50         15           core         2         5         8         60         15           core         tr         tr         12         8         60         15           core         tr         tr         12         8         60         15           core         tr         tr         10         10         60         15	oore         tr         25         10         40         10           oore         tr         20         8         50         10           oore         1         16         8         50         15           oore         1         23         6         50         15           oore         tr         tr         12         8         60         15           oore         tr         tr         12         8         60         15           oore         tr         tr         10         10         60         15	ooze         tr         25         10         40         10           ooze         1         20         8         50         10           ooze         2         5         8         60         15           ooze         1         23         6         50         12           ooze         tr         tr         12         8         60         15           ooze         tr         tr         10         60         15		calc ooze	2				30		07		10	9	7		-
core         tr         20         8         50         10           core         1         16         8         50         15           core         2         5         8         60         15           core         tr         tr         tr         12         8         60         15           core         tr         tr         tr         10         60         15	core         tr         20         8         50         10           core         1         16         8         50         15           core         2         5         8         60         15           core         tr         tr         12         8         60         15           core         tr         tr         tr         16         8         60         15           core         tr         tr         10         10         60         15	core         tr         20         8         50         10           core         1         16         8         50         15           core         2         5         8         60         15           core         tr         tr         tr         12         8         60         15           core         tr         tr         tr         10         10         60         15	core         tr         20         8         50         10           core         1         16         8         50         15           core         2         5         8         60         15           core         1         23         6         50         12           core         tr         tr         tr         15           core         tr         tr         10         60         15	-	calc oore	=				25		04		01	15			
oore         1         16         8         50         15           oore         2         5         8         60         15           oore         1         23         6         50         12           oore         tr         tr         tr         10         60         15	oore     1     16     9     50     15       oore     2     5     8     60     15       oore     tr     tr     12     8     60     15       oore     tr     tr     tr     10     60     15	core         1         16         8         50         15           core         2         5         8         60         15           core         1         23         6         50         12           core         tr         tr         tr         10         60         15           core         tr         tr         tr         10         60         15	oore     1     16     8     50     15       oore     2     5     8     60     15       oore     tr     tr     tr     12     8     60     15       oore     tr     tr     tr     10     10     60     15	-	calc ooze	ä				20		50		10	12			
coxe     2     5     8     60     15       coxe     1     23     6     50     12       coxe     tr     tr     12     8     60     15       coxe     tr     tr     tr     10     60     15	core     2     5     8     60     15       core     1     23     6     50     12       core     tr     tr     12     8     60     15       core     tr     tr     tr     10     60     15	core     2     5     8     60     15       core     1     23     6     50     12       coxe     tr     tr     12     8     60     15       coxe     tr     tr     10     10     60     15	core     2     5     8     60     15       core     1     23     6     50     12       core     tr     tr     12     8     60     15       core     tr     tr     tr     10     10     60     15			1				16	00	50		15	10			
OOSE	OOME 1 23 6 50 12  OOME tr tr 12 8 60 15  OOME tr tr 10 10 60 15	OOSE	OOME 1 23 6 50 12  OOME tr tr 12 8 60 15  OOME tr tr 10 10 60 15		calc ooze	2				5	00	9		15	10			
OOZE	OOME TT TT 12 8 60 15	OOZE	00fe tr tr 12 8 60 15	-	calc oose	-				23	9	20		12	90			
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Detailed Description															
Lithologic Log	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1	101	1 1 1	1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	1 8 1	1 1 1 3	1 10	PLUIGNE -	,,,,,,	 ,,,,,	 

Page 2 of 2 389 VISUAL CORE DESCRIPTION

Ship CHAIM Cruise ... Leg 6 Sta. 109 Core No 65 2

Detailed Description

Lithologic Log

264-283
CALC GOXE
CALC GOXE
forms sand with scattered pteropods
Sinclined 10° and concave upward
283-295
CALC GOXE
10YR 6/4 It yellowish brown
firm compact silty lutite with scattered forms
S concave upward
295-314
CALC GOXE
10YR 7/4 v. pale brown
form sand with scattered pteropods and abund. small lumps
of lutite included
S convex upward
OALC GOXE
7.5Y 8/2 white
firm lutite less silty than above units
S.H. <del>իտրախարակավագավագակակակակակակակակակակա</del>

S, H
3/3455
GALC 002E
IOTR 8/4 v. pale brown and 8/l white
some marbling and intermixing of colors above throughout unit
stiff plastic lutite al silty in darkar somes
G
455-521
FLAM IN
end of core CALC 002E 10VR 7/4 v. pale brown form sand with rare preropods and few scattered lutite lumps sand appears washed and disturbed 319-330 cm

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

391 VISUAL CORE DESCRIPTION

	The 15 stockers	Physiographic location NORTH FLAN I River No Rise.	Lithologic Detailed Description	0-165	1 1	+	I I G	Hat Hat H	4	1 + -	239-316	1 1	10	1 1 1 1 1	end of core	1 1 1		צייין זו מח				
sabuods Sabuods				E C	,	-	Silica	Distoms							+	1				+	+	
E Smooth Since Sin	e modeld					1	2	others	5	6	2	85	2	e	97	6	6	6			1	T
E Smooth a firefolds 8	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			523		( )	SI SI	Discoasters		5											T	
Sadiolaria Secondaria	Suarsporsing Suars	1				ES (	areo(	Pteropods	2	ä			tr			77	tr	Ţ				
Sadrolaria Secretion Secretaria S	Substance of the substa	3	100	gth	5	INDAN	Calo	2 [ i 2 2 0 1 0 n n b N	35	70	65		80	84	20	80	80	80				
CCS (%) 523   Second of the control	CCS (%)   S23		0.	e Len		D ABL		Porams	55	00	8		15	10	3	7	7	7				
### Bundances   109   10	### For Previous Particular   109	1	N uoi	Cor	3	IMATE		Clay	8	61	8	15	2	2	9	10	10	10				
#BUNDANCES (%) #BUNDANCES (%) #BUNDANCES (%) #Biggenous Afterial #	#BUNDANCES (%) #BUNDANCES (%) #BUNDANCES (%) #Biggenous #Calcareous #S	.00	-	ota	30	EST	0	spaeus										-				
100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   10	100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   10	rove wo.	Stal	-			D C				Ħ				-			+				
# 17	100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   10	Lore No.	Stal	-		1	S			-				-				+	-	-	+	+
# 100 No. 109  ### Core Length	100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   109   100 No.   10	Core No.	Stal	_		1	It & Sa							-	-	1	-	-	+	-	1	
Station No.   Log	Station No.   109	Core No.	Stal	1		1	Silt & Sa	sa inbonomit Micronodul es	-													
Station No.   109	Station No.   109	Lore No.	Stal	1			Silt & Sa	sa inbonomit Micronodul es	ı	ä	1			-	7	5						
Station No.   Log	SEDIMENT   113   Station No.   109   100		115	9		1	Silt & Sa	Setrital garieng safubonomiñ			al c ooze	calc ooze					calc ooze	calc ooze				

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

393

EXCELLENT Dote Described 23pm 75 by Brock	Detailed Description	0-716	CALC OOZE 10YR 8/4 v. bale brown orades to 10VR 7/4 v. bale brown	to 8/2 white	occasional sl white and v. pale brown mottles foram sand 0-11 cm; extremely abund, forams 11-125 cm, grad-	ually decreasing to abund. then scattered at bottom of core, firm compact al silty lutite	end of core																					
Core condition ExC	Lithologic	Log	1	1	1	1	1 1	1	+ + +	1	+ + +	1	+ 4	1	1,	+	1 + + +	+ +	1 1	10	1	1 1	1	1 1	o	1 1	1 1	
		(LEISTOCHIE			eous Late	PLATENE		səbu	-				·m					į	000		3						MICHENE - PRO-	0
		CM		aterial	Siliceous			smot	s ř O																			1
96 PC	110	316	ESTIMATED ABUNDANCES (%)	Biogenous Material	Calcareous		sp	LODO	919	20 tr	20	80	5   109															
	1	Total Core Length	ED ABUND		-	,	-	Fora	-	75	70	15	20	55														-
Core No.	Station No.	Total Co	ESTIMAT	erial	p	S		ines els	(OV	2	10		15	00			-											-
				Inorganic Material	Silt & San		alub	erita eroa erit	O řM				11															-
Chain	Expedition 115	9. 0				SEDIMENT	TYPE			calc ooze	calc ooze	nanno ooze	calc ooze	calc ooze														The state of the s
Ship:	Exped	Leg No.					LEVEL			1 cm	100 cm	200 cm	235 cm	8														

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Total Core Length   11   11   12   12   13   14   15   15   15   15   15   15   15	Total Core Length	cm. Lat. 29.337.5 Long 33.33.6 W Depth 2.142.mm. Excellent Dote Described 25 mm by Brooks	Detailed Description	0493 CALC 002E	IOYR 8/2 white a mottles scattered throughout	0-10 cm somewhat washed foram sandel0-193 cm, stiff compact	end of core									
Station No.   62 PG	Total Core No.   1111	950		ļ.,	1	1	1	1 1 1	1 1	1 1	1	1111	,			ուսարուսիուսիուսիուսիուսի
Station No.   111   Station No.   112   Station No.   113   Station No.   114   Station No.   115   Station No.   116   Station No.   117   Station No.   118   Stat	Total Core No.   111   Station No.   61 PC   Station No.   621 PC   Station No.   622 PC   Station No.   622 PC   Station No.   622 PC   Station No.   622 PC   Station No.   622 PC   Station No.   622 PC   Station No.   622 PC   Station No.   622 PC   Station No.   622 PC   Station No.   622 PC   Station No.   622 PC   Station No.   622 PC   Station No.   622 PC   Station No.   623 PC   Station No.   624 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   Station No.   625 PC   625 PC   Station No.			RESPO				-			PEISTO					
Core No.   111	Total Core No.   1111						Sn	<b>S</b> boud <b>s</b>								
Core No.   111	Total Core No.   1111			E			liceo									
Station No.  Total Core No.  Station No.  Total Core Light Solution of the control of the control of the core light solution of t	Core No.  Station No.  Station No.  Station No.  Station No.  Silta in the control of the contro			0		rial	5.									
Core No.   Core No.	Core No.  Station No.  Station No.  Station No.  Station No.  Silta in the control of the contro					Mate	-	others	2	9	2	3			-	
Station No.  Total Core No.  Station No.  Total Core Light Solution of the control of the control of the core light solution of t	Core No.  Station No.  Station No.  Station No.  Station No.  Silta in the control of the contro	1	9	716	(%)	snous	sno	Discoasters		- 00				15	15	01
Station No.  Total Core No.  Station No.  Total Core Light Solution of the control of the control of the core light solution of t	Core No.  Station No.  Station No.  Station No.  Station No.  Silta in the control of the contro		179		NCES	Bioge	lcare		-	0		-				
Sine Sine Sine Sine Sine Sine Sine Sine	Solvented F F F F F F F F F F F F F F F F F F F	=		ength	BUNDA		ී -		-					-	-	19
Sine Sine Sine Sine Sine Sine Sine Sine	Sold Services (services)  Sold Services (ser	1	No.	ore L	TED A			Forams	35	15	01	15	-	01	10	
Sine Sine Sine Sine Sine Sine Sine Sine	Sold Services (services)  Sold Services (ser	No No	tion	al C	TIMA		_		00	4	00	80	15	8	2	01
Solves So		3	Sta	To	ü	eria	P	Volcanic								
T T T T T T T T T T T T T T T T T T T						C Mat	& San	Zeolites.								
E febring P P P P P P						gani	=	Micronodules								
		- 1				Ino		Detrital		t.	1	1	5	5	1	5
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TYPE  TYPE  C OOSE  C OOSE  C OOSE  C OOSE  C OOSE  C OOSE  C OOSE  C OOSE  C OOSE	SED 13		iti	No.	-										0.0	
TYPE  Calc cox  Calc cox  Calc cox  Calc cox  Calc cox  Calc cox  Calc cox  Calc cox  Calc cox  Calc cox  Calc cox  Calc cox  Calc cox  Calc cox  Calc cox	3 3 3 3 3 3		0		1				8	8	B	8	8	8	8	5
TYPE A PER PER PER PER PER PER PER PER PER PER	3 3 3 3 3 3	Ship:	Exped	Leg				EVEL	-	00	00	9	9	0	2	2

397 Page 1 of 1	Cruise 115 Leg 6 Sto 115 Core No 70PC.  R. cm. Lot 27.57.25 Long 35532.7 W Depth 2340m.ser.  EX CELLENI Date Described 21 pm. 15 by 1 Brets. cation NNRTH FLANK 15 RIO GRANDE RIFE.	Detailed Description	0-2/3 CALC GOZE INVE 6/4 19 valloadeb bacon	occasional white and v. pale brown mottles scattered through-	firm compact lutite with abund, forams 0-230 cm, few to	scattered forams 230-273 cm G mortled	273-400 CALC OOZE 107R 8/3, 7/4 v. pale brown grades to v. pale brown	a few small white mottles and one 1 cm concave upward lam- ination 364 cm saiff plastic lutite; scattered forams 5, al disturbed	400-532 CALC 002E	10YR 8/2, 7/3 white grades to v. pale brown a few inclusions and laminations(not complete) of yellow	or rough lithified calc pavement (brittle to spatule) at	rest of unit	Detroy porners mayo solicer regime than matrix G Note: Matrix here same as shows unite a number of cartically	oriented features suggest flow in, lithified fragments are scattered in disturbed condition throughout black flecks	appear 490 cm to end of core end of core												
VISUAL CORE	ion loca	Lithologic Log	-	1	1 1	1	1 1		1 1	1 1	1		1 1	1 1	1 1	1 + + ~	1	1 1	1 1	1	1 1	1/1/1	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1++	and of the	
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						Sno.		səbuodg							T	1	I	1						1	I		
			E			Siliceous	6	omotaic Sadiolari	1			-	-	-	+	-	+	-	-				-	+	+		
					Biogenous Material	5		shers)	-		3				+	+	-	+					+	+	+		
			193	_	us Ma	5	Sui	oj seoos te	-	12	15				+		-							+	-		
ORES	٥			ESTIMATED ABUNDANCES (%)	odeno	Calcareous		spodouat	-																1		
ENT C	68 PC	112	ngth .	JNDANC	8	S	sir	ssotonnsi	50	09	09																
SEDIA		No.	Total Core Length	ED AB				Forams	30	2	5																
0.1.	Core No.	Station No.	a) Co	TIMAT				Clay	10	17	16																
396	203	Sta	Tot	ES	erial	D	spui	oinsofo) sda		ij																	
10NS	2				C Mat	& San		selifos																			
CRIPT					Inorganic Material	Silt		ubonon if	-																		
DE DES	4	1			Inc		suți	[6] [1] (	1 5	-	7																
396 SMEAR SLIDE DESCRIPTIONS - W.H.G.11. SEDIMENT CORES	ਰੰ	ition 115	9.0				SEDIMENT	344	calc ooze	calc ooze	calc ooze																
	Ship:	Expedition	Leg No.				LEVEL		1 6	100 св	192 сш																

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 1

399 VISUAL CORE DESCRIPTION

EXCELLENT Date Described 23 m 75 by 3 men. Incoming the secret of the second of the se	Detailed Description		10YR 7/4 v. pale brown	brownish gray bands, 36-39, 71-73,86-90 cm	in compact silty lutite, scattered to abund. forms end of core	, 1 , 1	1		1	. 1						
Core condition Ex. Physiographic location	Lithologic	Pleyburg	1 1	10	2 1 1 1 1	9 1 1	* 1 1 1	4	10	1 1	Mersacance and of wal	•	<b>ž</b> I	.,,,,	րուրուդուու	kannuhun
				1		Spondes			çı	ż						
					Siliceous	BinsloibeA	-		Ü	~						
		C		la!	St	2mo16i0										
				Biogenous Material		0thers	6	5	5	8	2	20	20	80	07	
1	1	532	96	Snou	sno	Discoasters	-	-	ä							
	10		VCES	8 i o g e	Calcareous	Pteropods	-	Ħ	7							
2	115	e Length	D ABUNDANCES (%)		S	sfissolonnsN	65	09	99	11	70	9	50	10	2	
70 PC		7				Forams	25	25	25	20	15	1	10		2	
	No.	ē	1			Clay	5	00	10		10	13	20	10	2	
	tion No.	al Core	TIMATE						Le .	r.						
	Station No.	Total Core	ESTIMATE	erial		Volcanic			t,	-				-	, , , , , ,	
	Station No.	Total Core	ESTIMATE	Material	Sand	Zeolites Volcanic shards										
	Station No.	Total Core	ESTIMATE	ganic Material	silt & Sand	Volcanic			,							
	Station No.	Total Core	ESTIMATE	Inorganic Material	Silt & Sand	grang Micronodules Zeolites Solicanic							ž.	H		
1		Total Core	ESTIMATE	Inorganic Material	Silt & Sand	Micronodules Zeatifosz Zentesfov		1	tr t				נג	t.	5	
Core No.	Expedition 115 Station No.	Leg No. 6 Total Core	ESTIMATE	Inorganic Material	Sift & Sand	grang Micronodules Zeolites Solicanic	celc ooze 1	calc coze 1		calc ooze	calc ooze	402 cm calc ooze	calc ooze tr	calc ooze tr	C41C 0026	

400

	1	NIRTH FLANK OF ALL GRANDE RISE	Detailed Description	CALC COZE GRADES TO NANNO COZE TO CALC COZE	10YR 7/4, 8/2 v. pale brown and white:color irregularly grades between the hues	sl faint mottling found throughout	foram Sand 0-26 chiextremely abunu. to abunu totams throughout in firm silty lutite	end of core																							
	Ship CHAIN Cruise Total Length 532 cm.	Physiographic location_	Lithologic Loa	1 + 1	+ + + + +	1 1 1	†	1 1 1	+ +	<del> </del>	1	9	+ + +	<del>1</del>	1 1	1 1	1 10	1 1	1 1	1	1 3	1	1 1	11	1 1	1	1 1 1	+	1	+ +	But of cour
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						T	SA		591	Spond				I		I															
							Biogenous Material Siliceous	5		D r b e A					1										-			+		-	
				5			Si		SW	Diato																	1	-	1		
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SEDIMENT CORES		9	115		330	יונרים	Calcareous			Ptero	#	1	1	+	-			-						-	-	-	+	+	+	-	
IMENT		70 PG		Total Cool Landth	and an	in a	13		-	onnsN	55	55	55	+	+									-	-	-	+	+	-	4	
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3		S	S	+	0 4		Silt & Sand		otn	Volca					-	1										L					
TIONS						1	S Sa		591	i losz					-	1											1	-	1	-	
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שני שני	\$		1			1	r.	Sut	16J gra	intel		9		,	1													1	1		
CMEAN SITUE DESCRIPTIONS - WH O I		Chain	Expedition 115	4		1		SEDIMENT	TYPE		calc ooze	calc ooze	calle corre																		
		Ship:	Expedi	ON DO	627			LEVEL			1 6	88 cm		1																	
													1	1												1				1	

Page 1 of 1 VISUAL CORE DESCRIPTION

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

71 PC	Station No. 116	Total Core Length _	D ABUNDANCES (%)	Calca	2 [ f 2 2 0 ª 0 n f	-	4 45 45	3 10 85	12 5 80	27 20 40	3 40 50	10 20 60	tr 10 20 55												
		532 Cm	ES (%)	Biggenous Material Calcareous	erspoors erspoors sugar shorts	044	tr 2	tr 2	3	tr 10	5 11	3 5	5 5												
, F O a	_	Pleus treme	111	· · · · ·	səbuc	Titt	11			\$	1111				3	""		ı	1	****		.11.	1	1	Lasame
Total Length 475 cm. Lat 27°57.5°5 Long 35°33'8" Depth Control EXIELLENT Date Described 24 pt 75 by Physiographic location NyRTH FLANK of Rio Grenn Ce Right	Detaile	1 - 1	Omnon large white and v. pale brown mottling often	foram sand 0.55 cm; 55-200 cm, firm sitty lutite with	200-473 CALC GOZE ONR 7/4 v. pale brown ff.m siley lutte with extremely abund. forans v. homogeneous		91	1 10		<u> </u>	1	+	1 1 1 1	1 1	1 1	1 1	1 1	1 1	+ +	1 1	1 1	<del> </del>	+ +	1 1	+ + + + + + + + + + + + + + + + + + + +

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

SMEAR	SMEAR SLIDE DESCRIPTIONS - W.H.U.	RIPTION	N - SI	н.о.н.	. Stu	I ME IS	I. SEDIMENT CORES						NIGHT	=
												,, - 0	700	Lat 29-59-4'S Long 35-33-9'
Chain	-		3	Core No.		72 PC	PC					· u.	000	NORTH FLA
115			S	Station No.	No.	1117	7						Lithologic Loa	Detailed Description
			Ţ	Total C	Core Length	ength	475	22		E		Responence	  -  -  -	0-23 CALC 00ZE
				ESTIMATED ABUNDANCES (%)	TED A	BUNDAN	ICES (	0				.4.	+ + +	10YR 7/3 v. pale brown foram sand well graded; perhaps as a result of washing
		-	1			Q	Dingon Material	N Since	toria			11	4	S s1 concave
	S	Silt & Sand	Sand			Cal	Calcareous	57		Siliceous	Sn	Т.	+ + +	23-42 CALC 002E
SEDIMENT	Si	se		sp		sį		S				MIDLEME	4 4 4	10YR 6/3 pale brown 1 cm white formal lamination and large mottle 35-42 cm - coarse forms sand
	rair						spo	ıəş:			S	2	1	8 - 2 - 8 · 8 · 8 · 8 · 8 · 8 · 8 · 8 · 8 · 8
	eding P	onorg	er i fo i neo f	ineol s ef0	Fora	ojouu	eropo	seoss	suau	e forb	abuo	1	<del> </del>	CALC OOZE 10YR 7/3 v. pale brown
	) ad	-	1			ieN	4d	10		1	ds	***	1	foram sand with increasing percentage of lutite
9000 0180	2			5	5	45 45	1		3			יוי	<del> </del>	86-704
		-				15 75			2			111	1	CALC OOZE 10YR 7/4 v. pale brown
calc ooze	11									-		1,,	+ + +	common v. pale brown and white mottling in the intervals
calc ooze	2	1	+	_	13	15 65		7	2	+		200,	+	firm silty lutite, foram content varies al from few to
calc ooze	3	ä	2	-	10 1	15 65		ä	7	+		,		common end of core
calc ooze	2	ä		_	10 2	20 58		1	01			111	1	
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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

407

	Ship: Chain	Chain				Core No.	.0	73 PC	50						Core condition EXC. Physicaraphic location	EXCELLENT Date Described 21 m 15 by 1 General on NICH FLANK P RIOGENISE RISE.
Total Core Length   1994   C	Expeditio		1			Statio	No.	1	811						Lithologic	
SEDIMATE   SEDIMATE	Leg No.	a				Total	Core	ength		70%		E		Restation	111111111111111111111111111111111111111	200 3
1009mic Merrial   1009mic Me						ESTIM	ATED ,	ABUNDA	NCES (3	(2					1 1 1	10YR 7/4, 8/4 v. pale brown: varying hues of two colors
			Inor	ganic	Mater	la!	-		Biogen	ous Ma	teria	-			1 1	540-580 cm and faint white and v. pale brown mottles
## SEDIMENT    SEDIMENT   SEDIMEN			S	Silt &	Sand	1		S	careo	57	+	Silice	sno		1 1	scattered rarely throughout
Can calc once  Can ca		TYPE	[61trita] enterp			spueys			spodouald	21 scoasters				20	1 1 1	and of core
Can calc come tr 10 5 50 30 5  Can calc come tr 5 10 63 10 5  Can calc come tr 7 12 50 10 51  Can calc come tr 7 12 50 12 13  Can calc come tr 15 10 50 12 13  Can calc come tr 15 10 50 12 13  Can calc come tr 15 10 50 12 13  Can calc come tr 15 10 50 12 13  Can calc come tr 15 10 50 12 13  Can calc come tr 15 10 50 12 13  Can calc come tr 15 10 50 12 13  Can calc come tr 15 10 50 12 13  Can calc come tr 15 10 50 12 13  Can calc come tr 15 10 50 12 13		0026	2	-	-	-			-	-	-				1	
Cas calc cose tr 3 2 70 20 5 40 Cas calc cose tr 3 12 60 20 5 5 60 Cas calc cose tr 5 10 55 10 55 20 10 63 10 5 6 10 10 10 10 10 10 10 10 10 10 10 10 10			:	-	-					-					1 1 1	
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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 2

														Ship CHAIN Cru Total Length 686 Core condition E	Cruise 115 Leg 6 Sta 120 Core No 15PC 16 cm. Lat 29'586'S Long 35'32'9" Depth 2.2.60 m. ser Exceusers by floate
Ship:	: Chein			Cone	Core No.	7	74 PC	1						Physiographic location	NIRTH FLANK OF RID GRANDE RISE
Expe	Expedition 113	1		Sta	Station No	0.	119							Lifhologic	Detailed Description
Leg No.	No. 6			Total	Total Core		Length	7	736		Cm		PLEISTOLENE	1 1	CALC 002E
				ESI	ESTIMATED		NDANC	ABUNDANCES (%)	~					1 1 1	10YR 6/4 It yellowish brown occasional large white mottles found 40-60 cm
		Inorganic Material	ic Mat	erial			18	Biggenous	w	Material				1	extremely abund, forams in firm silty lutite
		Sile	& San	Ð			Calo	Calcareous	S	-	Siliceous	Sno		9 1 3	G textural
LEVEL	SEDIMENT	Detrital grains Micronodules	sal, Loaz	spaens spaens	Clay	Forams	stizzotonnev	preropods	Discossiers	Others	Diatoms	səbuods	<u>.</u>	1 1 1 1	90-252 GALC OXZE OXIS 6/4 It yellowish brown grades slowly to 7/4 v. pale brow a few scattered faint white mottles firm sl silty lutite, scattered forms,a few black flecks CALC OXZE CALC OXZE
1 cm	calc ouze	-			1	4.5	45		-	-				1	10YR 8/2 white grades to 8/4 v, pale brown sl white mottles and occasional black streaks and flecks
100 cm	calc ooze				10	30	55		Ħ					1 1 1 1 1 1 1 1	v. plastic sl silty lutite S textural
200 cm	calc ooze	t			10	20	99			0.1				1 10	423-429 CALC 00ZE
300 cm	calc ooze	tt			2	30	45		.4	20			100	1 1	10YR 8/4 v. pale brown foram sand, somewhat graded
400 cm	calc ooze				10	20	99		5	10				61	graded bedding
500 cm	calc ooze	t			10	30	43		2	15				1 1 1	429-444 CALC 002E
600 ся	calc ooze	Þ			20	10	50		10	10				1 1	
700 cm	calc ooze	5			10	20	45		5	20				1 1 1	Note: a remarkable combination of elements exist in this un pelecypod shell fragments, large benthic forams, a fragment
735 cm	calc ooze	t			12	15	09			10			3	1	oiv. brittle Mn pavement, a pyritized burrow, mrge cemented eroded foram "nodules", and scattered lumps of reworked Olikoccene forams and Eocene (?) namos
									+	+	+			1 1	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
														1 1 1	CALC OOZE
										-	+		ļ.,,	1 -	extensive white mortling at unit basal contact
														1 1	S mothled
														1 1	456-582 CALC 00ZE
									-	-			\$	1	10YR 8/1 white grades to 8/2 white common faint white mortles throughout
									T	-	-		711	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	moist smooth lutite
									t	-	+		LATE	111	- 582-686
										+	+		amort.	111	CALC OOZE 10YR 6/4 1t yellowish brown
							1		1	-	+		.,	1 + 0	v. sl v. pale brown mottling firm sl sflty lutite, more lithified 582-589 cm
													85	1 18	end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 2 of 2

Ship CHAIN Cruise 115 Leg 6 Sta 120 Core No. 7572

VISUAL CORE DESCRIPTION

Detailed Description

Lithologic Log

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LOTE MINGHUE.

SEDIMENT   SEDIMENT   STITUS   STITUS   SEDIMENT   STITUS   STIT	Expe	Expedition 115	1			Stat	Station No.		120	1			
SEDIMENT   Inorquir   Martin   Mannofossils   SEDIMENT   SEDIMENT   STIMENTED   STILL & SAND	Leg					Tota	Con	e Len	gth _		989		
Trype   Can   Ca						EST	IMATE	ABU.	NDANC	ES (			
TYPE			Inc	Silt	& Sam	erial	+		Calc	Biogenous	0	Material	
Cm   calc ooze	LEVEL	SEDIMENT TYPE			sətiloəz	Volcanic sbands	Clay	Forams	sfissotonneN	pteropods	Discoasters	Others	
Can   Calc   Coze		calc ooze	-	ä			10	55	30		r,	4	
Call Cooke   Tr   20   15		celc oose	נג			r.	2	07	20	1	ä	2	
1 9   2   2   2   2   2   2   2   2   2	00 cm	-	t				20	15	63			7	
Can   Calc   Order   1	70 cm	nanno oose					-	6	06			ä	
Can   Calc   Oute   Can   Lambo   Oute   Can   Lambo   Oute   Can   Ca	370 cm	namo ooze	1				7	2	85		7	7	
Cam   Calc cose   Cr   12 3   Cam   Calc cose   Car   Car   Calc cose   Car   Calc cose   Car   Calc cose   Car   Calc cose   Car   Calc cose   Car   Calc cose   Car   Calc cose   Car   Calc cose   Car   Calc cose   Car   Calc cose   Car   Calc cose   Car	26 cm	calc ooze	נג				13	55	30		5	2	
Calc oose   2	32 cm		ţ			1	12	3	85		5	5	
cm calc oose 2 20 5  cm calc oose tr 7 5  cm calc oose tr 7 5  cm calc oose tr 7 5  cm calc oose tr 7 5  cm calc oose (17 7 5  cm calc oose (17 7 5	*40 CB*	calc	2			5	25	2	20		6	15	
cm calc oose tr 7 5 cm calc oose tr 7 5 cm calc oose tr 7 5 cm calc oose tr 7 5 cm calc oose (r 7 5	42 CB	calc ooze	2				20	2	20		6	20	
cm calc oose tr 7 5 cm calc oose tr 7 5 cm calc oose tr 7 5 cm calc oose (r 7 5	70 сп	calc ooze	Ħ				1	2	70		15	3	
cm calc oose tr 7 5 5 cm calc oose tr 7 5 5 cm ** reworked upper focene (1)	70 сп	calc ooze	5				7	5	20		35	3	
cm calc oose tr 7 5 * reworked upper Rocene (1)	₩ 06	calc ooze	5				7	2	20		30	80	
	85 cm	calc oose	5				1	5	20		30	80	
		* revorked	upper	ocen			11		11		T		

Page 1 of 1

Ship CHAIN Cruise 115 Leg 6 Sta. 120 Core No. 7596

Total Length 80 cm. Lat. 29'58.6'S Long. 35'329'N Depth 22.0 om. carr.

Core condition Excentent.

Date Described 21 pm 15 by Breton.

Physiographic location NMTH FLANK... RIO FRANCE RISE.

Detailed Description Lithologic

sl faint it gray and brown mottling at unit basal contact abund. forams throughout, silty lutite G mottled CALC 00ZE 10YR 7/4 v. pale brown 0-14 1011 11 1

CALC GOZE
IOYR 6/4 It yellowish brown
note large concentric v. pale brown mottle at 32 cm
scattered forams in firm \$1 silty lutite 4

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CALC ONCE.
10YR 7/4 v. pale brown
sl faint it gray mortiling 38-41 cm
abund. forams in silry lutite
G sl morthed

10YR 6/4 Lt yellowish brown
sl v. pale brown mottling at unit basal contact
scattered foram in sl silty lutite
Gmottled
71-80

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end of we

Response.

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CALC 002E
10YR 7/4 v. pale brown
featur Li yellowish brown mottling found al throughout
abund. forams in silry lutite
end of core
in the sample it is suspected to be an example of a
multiple penetration (wire rebound) pilot core. Ist penetration (0.38 cm, reponetration 38-80 cm

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 115 Chain Expedition Ship:

Leg No.

75 PG 120 Station No. 80 Total Core Length

CH

		S	Sponges						
		Siliceous	Radiolaria						
	l e	Sil	emote to						
	Material		shant0	-	9	2	7	4	
9.0			Discoasters						
SES (	Biogenous	Calcareous	pteropods						
NDAN	æ	Cal	2[izzo]onn5N	20	65	09	90	09	
D ABU		Ī	2m6n07	04	13	19	07	20	
ESTIMATED ABUNDANCES (%)			Clay	œ	12	15	~	15	
EST	Material	P	Volcanic						
			Setifoes						
	Inorganic	Silt &	Ri cronodul es	Ħ	-				
	Ino		Detrital	1	3	-	2	1	
			SEDIMENT TYPE	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze	
			LEVEL	1 cm	23 сп	56 сш	40 сш	79 сп	
	-	-							

Page 1 of 1

Ship CHAIN Cruise 115 Leg 6 Sto. 121 Core No. 74P.C.
Total Length 121 cm. Lat. 29'56-2'S. Long 35'330'y Depth 2315m-4rr.
Core condition Excellent Date Described 29'373's by 1-9rrace.
Physiographic location NIRTH FLANK, RIO 6RAPPE RISE.

Lithologic

109

REISTREME .

0-145
GALC 002E
GALC 002E
GALC 002E
IOWR 6/4 it yellowish brown
common v. pale brown mottling 0-40 cm, 132-145 cm
v. abund. forams 0-40 cm, and 90-145 cm, scattered elsewhere
in al sliry lutite
G mottled Detailed Description

CALC OWER

10TR 7/4 v. pale brown and 8/2 white

10TR 7/4 v. pale brown and 8/2 white

11 white mottling found occasionally throughout

v. abund. formus throughout stiff compact silty lutite

volor grades in two cycles from v. pale brown to white then

v. pale brown, der zones 185-205cm, 255-265 cm, 280-295 cm 145-295

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CALC 002E

107R 8/2 white

108R 8/2 white

108R 8/2 white mottles 383-490 cm and 660-671

firm plastic lutite with forems abund. 383-500 cm; scattered
elsewhere throughout unit
end of core 295-671 9

0

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PLINEME = MICENE.

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415

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

76 PC Station No. 121 Core No. Expedition 115 Ship: Chain

671 Total Core Length

Leg No.

Biogenous Material Sinslotbes Others Discoasters ESTIMATED ABUNDANCES (%) preropods sfissofonnsM 10 CJSA Inorganic Material Silt & Sand Volcanic Sections Micronodules suleng SEDIMENT TYPE calc ooze l cm LEVEL

sabuods

		1		1	1	1			1
,	2	9	80	9	2	4	4		1
		tt	2	01	00	2	9		1
6	20	65	62	57	09	95	19	+	+
2	30	25	15	15	15	20	01	+	1
21	13	3	07	01	12	15	15		+
	5	£							_
-	2						+		+
3	1	-	1	2	£	1	5		
9200	9200	9200	9200	9 <b>2</b> 00	ооже	oose	9200		
200 2152	calc ooze	calc ooze	c.lc	of Ic	calc oose	calc oose	ce lc		
1 2	8	5	8	8	8	8	8		
1	100	200	300	400	200	009	670		1

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ent of une.

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Page 1 of 1

Ship CHAIN Cruise 115 Leg 6 Sta. 122 Core No. 77PC.
Total Length 423 cm. Lat. 39°57.75 Long 35°347.1 W Depth 2330 m.corr.
Core condition ExcELLENT.
Date Described 21,275 by 1.10 dec.
Physiographic location NORTH FLANK, RIO GRANDE RISE.

REIL TOLENE Lithologic

Detailed Description

0-423
CALC MOZE
IUNE 6/4 It yellowish brown grades to 7/4 v. pale brown
large white mottles common 107-167.cm
forem sand grades to firm silty lutite with extremely abund.
forems
end of core

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Total Core Length 423 Core No. 77 PC Station No. 122 Expedition 115 Ship: Chain Leg No. 6

Sandands  A b a lo a control  B c	
25	Inorganic
2	Silt &
75 18 75 18 75 18 65 30 60 35 77 77	Detrital grains SalubonoraiM
60 55 30 60 35 tr	2 tr
65 30 tr 60 35 tr	2 tr
65 30 tr	2
SE 99 38	tr tr
	t t

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Page 1 of 1 VISUAL CORE DESCRIPTION

Ship CHAIN Cruise 115 Leg 6 Sto. 123 Core No. 7872.

Total Length 750 cm. Lot 29°57./ \$ Long 25°33.8W Depth 22.53 m Law Core condition EXCELENT Date Described 20 mm/5 by \$ \$800. Physiographic location NARTH FLANK: No GRANDE RISE. Core condition EXCE

0-44 CALC GOZE 10YR 7/4 v. pale brown foram sand top 15 cm disturbed and washed 6 G 44-730 Detailed Description Attiseient Log 1 0 1

CALC 002E
10TR 7/4 v. pale brown grades intermittently and irregularly father throughout with 10TR 8/2 white father white mortling scattered, 90-120 cm, 430-570 cm fifm silly luttee with extremely abund. forams throughout end of core

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

CB Total Core Length 730 Core No. 78 PC Station No. 123 Expedition 115 Ship: Chain Leg No. 6

		S	sabuads	2					- 1					
		Siliceous	Radiolaria											
	١٩	Sil	smots iQ											
	Material		others	2	7	7	8	2	2	5	œ			
	in	s n	Discoasters	Ħ	Ħ	ä	Ħ	Ħ	Ħ	2	2			
ES (	Biggenous	Calcareous	pteropods											
INDAN	89	Cal	2[izzolonneN	45	65	09	09	09	16	80	70			
D ABL			Forams	35	00	30	15	25	10	•0	12			
ESTIMATED ABUNDANCES (%)			Clay	17	20	90	20	6	10	10	œ			
EST	Material	Đ	Volcanic											
	C Mat	& Sand	Zeolites											
	Inorganic	Silt	Micronodules	t,	Ħ	tt	-	-	-		5			
	Ino		Detrital Sarins	-	t,		2	Ħ	1	ä	ä			
•			SEDIMENT	calc ooze	calc ooze	cafe ooze	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze			
			LEVEL	1 cm	100 cm	200 ст	300 сш	400 сш	500 cm	600 ст	729 ст			

Page 1 of 1

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

421

Ship CHAIN Cruise 115 Leg 6 Sta 124 Care No 1197C.

Total Length 622 cm. Lat 24°57.6°5 Long 35°53.7°4 Depth 2214 m.cerr.

Core condition Excellent Date Described 247eb15 by \$6044.

Physiographic location NIRTH RANK: RIO GRANDE RISE Ship CHAIN

Detailed Description 4 100 Lithologic REISTREME T

0-190
CALC COZE
LORD 7/4 v. pale brown
v. light, v. faint white mottles scattered throughout foram sand 0-40 cm grades to silty lutite with v. abund.
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MD- 200 MUNENE

CALC GOZE

UNR 6/4 it vellowish brown
abund. v. pale brown mettling 290-340 cm, 440-450 cm, v. small
pale brown mottles scattered slightly otherwise
should. forams in firm slightly silty lutite

CALC 002E 10YR 8/1 white abund. forams in firm silty lutite Sconcave upward

101

CALC 002E.

(ARR 7/4 v. pale brown to 8/4 v. pale brown large white mottles found commonly throughout, varying hues of two colors above alternating inroughout firm compact lutifie with abund. forams 485-585

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MIOCENE

682 Station No. 124 Total Core Length \_\_

79 PC

Core No.

Expedition 115

Leg No.

Chain

Ship:

E

sabuods Binefolbes Smots fü Biggenous Material 2 2 2 2 2 N 00 Discoasters ESTIMATED ABUNDANCES (%) spodouato 70 09 62 09 20 20 20 15 3 75 3 3 .5 2 7 3 12 30 20 30 12 20 12 Clay Inorganic Material Silt & Sand Spreds Shards satilosz ä Micronodules tr suleub t t Detrital tr 7 SEDIMENT Calc ooze calc ooze calc ooze 300 cm calc core 400 cm calc ooze 490 cm calc ooze 590 cm calc ooze 682 cm calc ooze TYPE 200 сш 100 сш 1 cm LEVEL

Page 1 of 1

Ship CHAIN Cruise 115 Leg 6 Sta 12.4 Core No 1986.

Total Length 24 cm. Lat 29'57.6'S Long \$5'32.1W Depth 22.14m.corr.

Care condition Excellent Date Described 24'6b15 by 4 Brate.

Physiographic location NNTH FLANK: Rio GRANDE RISE.

Lithologic 0-24 Detailed Description

0-24
CALC 002E
10YR 7/4 v. pale brown
extremely abund. forams in firm silty lutite
core appears somewhat washed 0-10 cm
end of core 1 1

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

		E
79 PG	124	24
Core No. 79 PG	Station No. 124	Total Core Length 24
Ship: Chain	Expedition 115	do No

	S	Sebuods		
	iceoi	BinsloibsA		
7	Sil	emoteid		
1000	Siliceous	0thers	2	3
1.6	0	Discoasters	6	2
0000	Calcareous	pteropods		
1000000	Cal	2[izzotonn6M	20	\$9
		2m6107	65	20
	T	Clay	10	01
1	Sand	Volcanic		
1	S San	Zeolites		
1	Silt &	Micronodules		8
Tage	S	Detrital snievp	ţ	<b>B</b>
		SEDIMENT TYPE	ralc ooze	raic ozze
		LEVEL	1 сш	22 сш

Ship CHAIN Cruise 115 Leg 6 Sta 125 Core No 80PC
Total Length 462 cm Lat 27°54.3°5 Long 35°33.4°N Depth 1295 car metri
Core condition Extension Date Described 25 FEB 15 by 36 Mac.
Physiographic location NOATH FLANK: Ria GRANDE RISE

Detailed Description Core condition Lithologic 607

10VR 7/4 v. pale brown graded pteropod coke, silt size fragments to 1.5 cm long tests one v. well preserved test 1.5 cm x 1.25 cm at 43 cm 43-275 CALC GOZE

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neising -

CALC 002E
10YR 6/4 It yellowish brown grades slowly to 7/4 v. pale
brown
several zones of faint, poorly define white and v. pale
brown mottles, 90-109 cm, 120-130 cm, overall lightening
somethat splotchy 190-240 cm
moist sitty lutite with forams abund: throughout
S textural

CALC DOZE

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10YR 6/4 It yellowish brown somewhat graded sl laminated foram sand I cm break in core 275-276 cm S horizontal, textural.

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CALC COZE 10TR 6/4 1L. yellowish brown scattered forams in firm, tacky, al silty lutite. S inclined 5°

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CALC 002E 1078 8/1 white ffrm,plastic,smooth lutite with a few v. scattered forams

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end of we

200

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 80 PC Expedition 115

Ship: Chain

Leg No. 6

Total Core Length 462

Station No. 125

1 cm   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   STATE			100		1	2	ESTIMATED ABUNDANCES (%)	n ABC	NUAN	52	( )		3		
SEDIMENT   SEDIMENT			TUO	rdan 1	A Mat	er a		-	200	oden	Sno	ater	P .:	1000	0
SEDIMENT   Type   Selicity   Septential					5	,			9		6		2	200	3
calc coze tr tr 7 10 35 45 tr calc coze 2 tr 11 15 65 1 1  calc coze 1 30 20 45 tr 1  calc coze tr 2 1 1 15 65 1 1  calc coze tr 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	LEVEL	SEDIMENT		Micronodules	26011265	Volcanic shards	Clay	POrams	sfissolonneN	pteropods	Discoasters	others	2mots tO	BinefolbeA	•
calc coze         2         tr         11         15         65         1         1           calc coze         1         30         20         45         tr         1           calc coze         tr         8         2         65         20           calc coze         tr         2         3         60         20           calc coze         tr         7         3         55         20           calc coze         tr         2         3         60         20           calc coze         tr         2         3         60         20		calc ooze	נ	ä			1	10	35	45	ä	8			
calc core 1 30 20 45 tr 1  Channo)  calc core tr 8 2 65 20  calc core tr 2 3 60 20  calc core tr 7 3 55 20  calc core tr 7 2 3 60 20  calc core tr 7 2 3 60 20		calc ooze	2	ä			=	15	65	-	-	2			
(namo) calc ooze tr 8 2 65 20 calc ooze tr 2 3 60 20 calc ooze tr 7 3 55 20 calc ooze tr 7 2 3 60 20	150 сш	calc ooze	1				30	20	45	Ħ	-	3			
calc coze 1 tr 8 2 65 20 calc coze tr 2 3 60 20 calc coze tr 2 3 60 20 calc coze tr 2 3 60 20	250 сш	(nano)	11					15	82	7		2			
calc core tr 2 3 60 20 calc core tr 7 3 55 20 calc core tr 2 3 60 20		calc ooze	1	ä			∞	2	65		20	4			
calc cose tr 7 3 55 20 calc cose tr 2 3 60 20		calc.oome	1				2	6	09		20	15			
calc cose tr 2 3 60 20		calc oose	Ħ				1	6	55		20	15			
	191 сп	calc oose	t.				2	6	99		20	2			
															-
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Page 1 of 1

Ship CHAIN Cruise 115 Leg 6 Sta 125 Core No. Bord.

Total Length 80 cm. Lot 29°56-3°5 Long 25°33.6°N Depth 2295 carr metus

Core condition Excellent Date Described 25°621°E by 19 and 1.

Physiographic location NORTH FLANK: RIO grands RISE.

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end of core

NEISMENE

0-28
CALC OGZE
CALC MORP 7/4 v. pale brown
coarse pteropod coze with one lamination of fine fragments
one remarkably well preserved large test at 27-28 cm
S horizontal
28-80 Detailed Description

CALC 002E
10%R 6/4 It yellowish brown
v si,v, pale brown mortling scattered throughout
firm silty lutite with abund. forams
end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

80 PG 125 Station No. \_ Core No.

Expedition 115

Leg No. 6

Ship: Chain

Total Core Length 80

Sponge Biggenous Material
Calcareous Rediolberia smots rd 5 5 Others Discoasters ESTIMATED ABUNDANCES (%) 09 Pteropods 20 15 30 10 50 effesotonneN 20 5 20 Forams 10 Clay Inorganic Material Silt & Sand Volcanic satiloaZ Micronodules Detrital grains 7 7 SEDIMENT calc ooze 30 cm calc ooze 79 cm calc ooze TYPE l cm LEVEL

Page 1 of 1

Detailed Description 0-13 Message Log Lithologic

CALC COZE

10YR 6/4 It pellowish brown
coarse foram sand
S concave upward
13-256
10YR 8/4 v. pale brown, 8/1 white
FLOM-IN
end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Expedition 115 Leg No. 6		Inorganic Material Silt & Sand	SEDIMENT TYPE  Letitital Serinser  Serinser Micronodules	cm calc ooze	cm calc ooze tr	cm calc ooze tr										
Station No. Total Core	ESTIM	Material	Zeolites Shands Shands						+							
Station No. 126 Total Core Length	ESTIMATED ABUNDANCES (%)		C1ay Forams	5 55	8 tr	8	-		+				-	+	-	
126 ngth	UNITANC	Calc	s[issolonnsN	07	85	22										
2	ES (%	Biggenous	Pteropods	ä										1	1	
276	-	v	Discoasters	5	7	15 6	+						-	+	+	
		Material	0thers	#	-			+	+	-	+		+	+	+	-
E		Siliceous	Smoteid	-	-	+	+	-	+-	-	-	-	+	+	+	-
		eons	Sponges	-	-	-	+ +	+	+		+	-	+	+	+	-

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Page 1 of 1

Ship CHAIN Cruise 115 Leg 6 Sta 127 Core No 82PL
Total Length 516 cm. Lat 29.56.715 Long 35:3354 Depth 22.59 mark.

Core condition Excellent Date Described 26.6075 by 9 Brids.

Physiographic location NRTH FLAME, Ale GRANDE, RISE.

Detailed Description Lithologic

4 + + 1 4 OCHENE REISPIEME

CALC OOZE
10R8 7/4 v. pale brown
1 large irregular inclined lamination of silty lutite
45-50 cm foram sand not graded but somewhat washed 0-10 cm
5. H 91 191

CALC COZE
7.5YR 8/4 pink grades sI to 7/4 v. pale brown in two sequence common pink (10YR 8/4) mottling in areas of 10YR 7/4 v. pale brown matrix 130-210 cm.;210-516 cm strikingly homogeneous gradational v. pale brown areas 130-220 cm end of core CALC COZE
1078 8/2 white, 7/1 it gray
1078 8/2 white, 7/1 it gray
foram sand with increase lutite matrix
two bands:sharply defined white (1 cm), it gray (2 cm)
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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Total Core Length Core No. 82 Pc Station No. 127 Expedition 115 Ship: Chain Leg No.

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Material Siliceous simeforbeA Diatoms orpers Discossiers Biggenous ESTIMATED ABUNDANCES (%) preropods 30 stizzotonneN 65 Forams Clay Inorganic Material Silt & Sand Volcanic Zeolites Micronodules tr Detrital SEDIMENT 1 cm calc ooze TYPE LEVEL

sabuods

10 10 5 7 8 10 10 10 15 10 9 45 65 10 9 09 60 2 12 15 10 15 13 tr t calc ooze 150 cm calc ooze calc ooze 72 cm calc ooze 250 cm calc obze calc ooze 350 сш 515 cm 450 cm

Ship CHAIN Cruise 115 Leg 6 Sta 128 Core No 83PC.
Total Length 651 cm Lat. 29 5805 Long 35 33.1" W Depth 2189 meer.
Core condition Excellent Date Described 26 64 IS by A Brede.
Physiographic location NIRTH FLANK: RIO CAMPER N.E.

CALC 002E
1078 8/4 v. pale brown
fine to coarse foram sand
apparently washed due to recovery 0-15 cm
34-73 Detailed Description 0-34 REISTORNE TETE ++++ 4 1 1 01 H Lithologic

CALC OOZE

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109R 6/3 pale brown grades to 8/4 v. pale brown stiff silty foram rich lutite foram - rich lutite disturbed and washed and mixed with foram sand 34-40 cm 5 inclined 15°

CALC OOZE

Note: The sharpness of contact and similar inclinations above and below this form sand layer appear to indicate that there was a break in core (probably during pullout) and the forms now included there washed down the side of the liner and filled the gap. 10YR 8/4 v. pale brown foram sand S inclined 15°

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10YR 8/3 v. pale brown to 7/4 v. pale brown, color grades repeatedly between these two hues all scattered white motiling found occasionally throughout stiff compact siley lutite with v. abund. forams at few scattered dk flecks and tiny mottles 373-380 cm end of core CALC OOZE

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Ca Total Core Length 651 83 PC Station No. 128 Core No. Expedition 115 Ship: Chain Leg No.

			Sepudes												
		Sno			-	-	-			-	-		+-+-	++	-
		Siliceous	Radiolaria										-	1	
	lei	Sil	2mo18 f0												
	Material		279410	3	-	-	2	2	7	2	7	2			
80	S		Discoasters					7	4	3	9	7			
CES (	Biggenous	Calcareous	pteropods												
JNDAN	8	3	2 f i 2 2 0 1 o n n 6 V	35	65	65	62	99	55	9	55	59			
D AB			Forams	45	30	30	15	15	18	15	15	10			
ESTIMATED ABUNDANCES (%)			CJSy	14	4	4	20	20	20	20	25	50			
EST	Material	P	Volcanic shasheds												
			Zeolites												
	Inorganic	Silt &	Micronodules	-	E	5	ä	1	5	5	5	5			
	Ino		[etinted enterp	2	ŗ	ţ	1	-	-	נ	5	-			
			SEDIMENT TYPE	9200	a le	e z	9100	9	986	9200	9				
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			3	ce le	calc	celc	ca lc	calc ooze	co lc	celc	s lc	ole o			
			EL	ES	8	8	5	8	8	8	E CB	5			
			LEVEL	-	72	75	175	275 cm	375	475	575	920		11	

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VISUAL CORE DESCRIPTION

Page 1 of 1

Ship CHAIN Cruise 115 (eg 6 Sta 129 Core No 847).

Total Length 667 cm. Lat 29.59.75 Long 35.13.54 Depth 2110 m Lor Core condition EXCELLENT Date Described 3MME 15 by Contact Physiographic location NORTH FLANK: NIO GRANDE RISE

0-66)

CALC DOER

(CALC DOER

I (10YR 7/3 v. pale brown grades to 8/2 white and back to 7/3

aside from gradual color evolution, entire core is of uniform

I (tholosy)

firm compact lutite with v. abund. forams throughout, generally
a bit comret 0-225 cm
core appears somewhat washed 0-12 cm
end of core Detailed Description

Lithologic

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

E) Total Core Length 666 Station No. 129 Core No. 84 PC Expedition 115 Ship: Chain Leg No.

		Siliceous	Sponges		-	-	-	-	-	-		+-	-	-	+	+	-	-
		1ice	RinslotheR	-	-	-		-		-	-	+	-	+	+	+-	+	+
	i a j	Si	2mo1610															
	ater		shers	5	2	5	12	80	15	25	8							
94	Biogenous Material	Snc	Discoasters	2	2	4	9	•	15	15	9							
ES (	oder	Calcareous	Pteropods															
ESTIMATED ABUNDANCES (%)	80	Calo	sfizzolonneM	53	80	20	56	55	30	30	25							
D AB			2m6707	30	30	20	15	15	00	01	01							
IMATE			Clay	20	10	20	10	14	30	20	25							
EST	erial	Silt & Sand	Volcanic shands	ä	E	ä			Ħ	ä	Ë							
	Mat	& San	Zeolites															
	roani	Silt	Micronodules			ä	2	٤	٤									
	Ino		Detrital snisye	5	2	-	1	5	2	5	5							
			<b>5</b>		U				u		•							
			SEDIMENT	200	9200	200	9200	200	200	200	200							
			SS	calc ooze	co Ic	calc ooze	ca lc	calc ooze	celc ooze	calc ooze	calc ooze							
			Ē	5	9	8	CE	CB	8	<b>9</b>	8							
			LEVEL	-	100 cm	200 св	300 cm	400 cm	500 cm	900	999				1			

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Cruise IIS Leg 6 Sta 130 Core No 85PC.

740 cm. Lat 29°59.3'S Long 35°33.6" Depth 21.30 m.cm.

EXCELLENT Date Described 3MARTS by 1.50 Mac.

Incation NORTH FLANK RIOGRANDE RISE Physiographic location\_ Core condition Ship CHAIN Total Length

1 Lithologic 507 REISMENE

Detailed Description

0-740
CALC OOZE
1078 8/2 white to 7/4 v. pale brown color gently and repeatedly grades between these two colors
stiff v. compact lutite with v. abund. forams
the interval 0-20 cm appears to have been washed, disturbed during recovery
end of core

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Biogenous Material
Calcareous Siliceous stasfo 5ш0 SJ 240 5191560 ESTIMATED ABUNDANCES (%) spodo. 85 PC Station No. 130 Total Core Length 21122010 Smeno Core No. Clay spueys outc Inorganic Material Silt & Sand tes sa [npouo. feti grains Expedition 115 SEDIMENT Ship: Chain TYPE Leg No. LEVEL

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7	27	91	15	14	15	91	28	15							
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له ا		9	9		•	a)									
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cm         calc oote         1         1         tr         15         16         55         5           cm         calc oote         2         tr         tr         tr         16         55         3           cm         calc oote         1         tr         tr         15         16         55         3           cm         calc oote         1         tr         tr         15         16         55         3	cm         calc ooze         1         tr         7         50         40         tr           cm         calc ooze         1         tr         tr         27         30         40           cm         calc ooze         1         1         tr         16         30         50         tr           cm         calc ooze         1         1         tr         15         20         60         tr           cm         calc ooze         1         1         tr         16         30         3           cm         calc ooze         1         1         tr         15         16         55       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      16         55         5	cm         calc coze         1         tr         7         50         40         tr           cm         calc coze         1         tr         tr         27         30         40           cm         calc coze         1         1         tr         16         30         50         tr           cm         calc coze         1         1         tr         15         20         60         tr           cm         calc coze         1         1         tr         16         30         50         3           cm         calc coze         1         1         tr         16         20         50         7           cm         calc coze         1         1         tr         16         20         50         7           cm         calc coze         1         1         tr         15         16         55         5	cm         calc ooze         1         tr         7         50         40         tr           cm         calc ooze         1         tr         tr         27         30         40           cm         calc ooze         1         1         tr         16         30         50         tr           cm         calc ooze         1         1         tr         15         20         60         tr           cm         calc ooze         1         1         tr         15         16         55         5           cm         calc ooze         1         1         tr         tr         16         55         3           cm         calc ooze         1         1         tr         15         16         55         3           cm         calc ooze         1         1         tr         15         16         55         5	cm         calc coze         1         tr         7         50         40         tr           cm         calc coze         1         tr         tr         27         30         40           cm         calc coze         1         1         tr         16         30         50         tr           cm         calc coze         1         1       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Page 1 of 1

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Ship: Chain

Total Core Length 740

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Spondes Biggenous Material
Calcareous Siliceous Stasforbes Smotero 12 25 25 15 25 S 2 5 10 15 10 15 01 1 2 s Discossters pteropods 07 20 58 52 25 25 55 15 sfissofonnsM 15 15 21 12 10 15 10 Forams 2 2 2 20 22 20 43 30 13 32 CJSA Inorganic Material Silt & Sand Volcanic t t 5 5 ä t t t t ä ä \*icronodules ~ -Detrital grains LT Ħ 5 Ħ 7 SEDIMENT calc og e calc coze calc ooze calc ooze ca lc ooze calc ooke calc ooze calc ooze calc ooze TYPE 400 cm 500 cm 739 cm l ca 200 cm 300 cm 600 cm LEVEL 100 cm 700 cm

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Core No. 86 PC

Leg No.

131 Station No. Expedition 115 ESTIMATED ABUNDANCES (%)

0-740
(QLE ODZE
10YR 8/2 white gently grades to 7/3 v. pale brown
a few frregular faint white mottles found in the entire core
firm compact lutite with v. abund. forams throughout, 0-10 cm
foram sand disturbed by washing in recovery
505-61 cm. void water pocket, removed before core was split
end of core Ship CHAIN Cruise 115 Leg 6 Sta 131 Core No 86PC.
Total Length 140 cm. Lat 30°00.15 Long 35:33.7 V Depth 2090 metr.
Core condition Excellent Date Described 4100.15 by 100 the Detailed Description

Page 1 of 1

Ship CHAIN Cruise 115 Leg 6 Sto. 131 Core No. 86P6Total Length 36 cm. Lot 30°00-15. Long, 35°33.7W Depth 2010 mistr.
Core condition Excellent Date Described 4448.15 by 1600-10.
Physiographic location NORTH FLANK: Rio GRANDE Rice.

Detailed Description Core condition Excel
Physiographic location

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0-8
CALC OOZE
UNR 7/3 v. pale brown grades to 6/2 it brownish gray
thin gradational laminations throughout
fairly comrse foram sand
5, textural
8-36 CALC GOZE

INTR 8/2 white
firm compact Lutire with v. abund. forams
end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 86 PG Chain Expedition 115 Ship:

Leg No.

Station No. 131

Total Core Length 36

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9	Sil	2mots f0																	
ater		syers	7	2															
Snoi	Sno	Discoasters	00	œ															
ogen	are	Pteropods																	
81	Calo	s[izzo]onnsN	45	45															
		Forams	25	15															
		Clay	20	30															
erial	p	Volcanic sbrads																	
c Mat	& San	Zeolites																	
rgani	Silt	Micronodules	tr	Ħ															
Ino		Detrital Snisy	tr	נ															
		SEDIMENT	.c 00 <b>ze</b>	9 <b>2</b> 00 0															
_			CB	cal	+-	-	-		-							-			
		LEVEL	1 сш	35 св															
		Inorganic Material Biogenous Material Silt & Sand Calcareous Silt & Sand Calcareous	TYPE SEDIMENT SEDIMENT STATES SEDIMENT STATES SAND SEDIMENT SAND SAND SAND SAND SAND SAND SAND SAND	SEDIMENT  TYPE  TY	VEL SEDIMENT TYPE STATE OF THE SAND STATE SAND STATE SAND STATE SAND STATE SAND SAND SAND SAND SAND SAND SAND SAND	VEL SEDIMENT TYPE TYPE TO CALC OVER TET AS A CALC OVER TET AS AND TO CALC OVER TET AS A C	SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SIT & SAND  SA	SEDIMENT SED	MEL SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SIT & SAND  Volcantc  Shards  Sometimes  And Nannofossfls  Clay  Prevopods  Prevop	SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SAND	Calc ooze tr TryPE SEDIMENT SEDIMENT SEDIMENT SEDIMENT SEDIMENT SEDIMENT SILE & Sand Calc ooze tr Tr TryPE Calc ooze tr Tr TryPE Calc ooze tr Tr TryPE Calc ooze tr Tr TryPE Calc ooze t	SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SITURDADADADADADADADADADADADADADADADADADADA	TYPE   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   STITE   STITE	SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SIT CAREA STANDARS  STANDA	SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SALCHOOR STATES  SALCHOOR SALCH	SEDIMENT  Calc ook  Calc o	SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SITURGANIOS  SITURGANIOS  SITURGANIOS  SITURGANIOS  SITURGANIOS  SITURGANIOS  SITURGANIOS  SANCO	Inorganic Asterial SEDIMENT SIGNATURE SIGNATURE SIGNATURE SIGNATURE SIGNATURE SIGNATURE SIGNATURE STAT	SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  STATE  ST

Page 1 of 1

Ship CMN Cruise 115 Leg 4e Sta. 134 Core No. 87 PC.
Total Length 2. cm. Lat 29° 46.3'S. Long 35°34.0' Depth 3302 comm.
Core condition \_\_\_\_\_\_\_\_ Date Described 21Hay 25 by 8 H°G 182
Physiographic location Canyan trending NE, Nixth Flank of Rio Grande Rise Lithologic

Core did not penetrate the bottom. Recovery consists of a small amount of Mn nodules and Mn crust only. Detailed Description

VISUAL CORE DESCRIPTION

Page 1 of 1

15 Leg 6 Sto 137 Core No 887C

Lat 30' 55.0's Long 30' 048'W Depth 294 ImperoreNT

ENT SIDE 05 VEMP CHANNEL EXCELUENT Cruise 115 Total Length 704 Core condition \_\_\_ Ship CHAIN

Detailed Description Physiographic location\_ Lithologic

0-165
GALC 002E
GALC 102E
1078 64 It yellowish brown grades to 7/4 v. pale brown sl v. poorly defined white mottling 0-90 cm moist silty lutite with scattered forams 1 101 REISPOLENE -

10YR 8/2 white is a second throughout stiffer more plastic-like lutite with abund. forams textural NANNO OOZE 165-344 1 1 + + 101 1 1 1 111

344-460

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460-704
CALC 002E GRADES TO NANNO 002E
CALC 002E GRADES TO NANNO 002E
DORR 7/4 v. pale brown grades to 6/4 It yellowish brown then back to 7/4 v. pale brown scattered black flecks and faint white mottling 490-530 cm moist lutite with scattered forams becomes more plastic 645-691 cm near end of core end of core CALC OOZE GRADES TO NANNO OOZE
10YR 7/4 v. pæle brown grades to 8/2 white
moist less compact lutite with scattered forams + 1 + 1 1 1 1 ՟ <u>՟</u> Դուսասարակապատրա

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

S8 PC Core condition Ex Physiographic location Lithologic Core Core Core Core Core Core Core Core	Cm REIZORNE	JUND	Biggenous Material 20 20 0	Forems  Sannofossils  Pteropods  Others  Sadiolaria  Sadiolaria  Sannoges  ###################################	25 60 3	1	13 85 2	1	6 1 98 01	30 58 2	5 75	10 85 3	10	TEISOCE DINGING (SE)	011			
Core No. 8	Total Core Length	ESTIMATED AB	Inorganic Material Silt & Sand	Detrital Getrital Afcronodules Zeolites Volcanic Shards	1 tr 11	3 tr 29	tr	tr 2	1 #	tr 5 5	1 1 15	tr 2						

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 1

EX. EU.ENT. Date Described EMAYIF by AMAN.	Detailed Description	0-200 CALC DOZE	1078 6/4 it yellowish brown scattered halo-like white and v. nale brown mottles mose	abund. at base	moist firm lutite with scattered forams G mortied 200.280	NANNO 002E  10YR 7/4 v. pale brown common white and v. pale brown mottles stiffer more plastic-like lutite, forams common 6 20-335 NANNO 007F	10YR 6/4 It yellowish brown	extensive white and v. pare brown mottling stiff plastic lutite, scattered forams	335-56 xx and 200 E	JONE 7/4 v. pale brown grades to 6/4 lt yellowish brown in two	separate and unstants sequences separate and v. pale brown mottling common throughout stiff plastic lutite with scattered to abund. forams becomes	more lithilied with depth G G S80-672	NANNO 002E 10YR 7/3 v. pale brown grades to 8/1 white	<pre>small faint lt yellowish brown mottling and black flecks 580-620 stiff plastic lutite with common forams end of core</pre>		+					
Total Length 672 ( Core condition <u>EX</u> Physiographic location,	Lithologic Log	nespune -	1	1 1	1	10101	100	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	 	44	8 1	4 4	1100	94	† †	REIGNIEWS	and an	 • <b>%</b>	1	1	,,,,,
		-			Siliceous	Radiolaria															
		E)		Biogenous Material	S	orb410 smotsfQ	S	S	9	4					1						
1	137	128	(%)	odenous	Calcareous	Pteropods Discossters	55	63	65	09											
PG	-		NC	8			2	10	9	9											
88 PG	No.	re Length	ED ABUNDANCE	8		Forams	15	10	œ	6											
	ition No.	al Core Length	STIMATED ABUNDANCE			Vaf7 Pereams															
Core No. 88 PG	Station No.	Total Core Length	ESTIMATED ABUNDANCES (%)			Rorams	15	10	œ	6											
	Station No.	Total Core Length	ESTIMATED ABUNDANCE			Shards CafJ Forams	20 15	20 10	œ	56 9											
	Station No.	Total Core Length	ESTIMATED ABUNDANCE	Inorganic Material Bi		Volcanic Shards Clay RefO	20 15	20 10	œ	6											
	Expedition 115 Station No.	Leg No. 6 Total Core Length	ESTIMATED ABUNDANCE			grafins Micronodules Zeolites Volcanic Shards Clay	2 tr 20 15	1 tr 20 10	1 22 8	tr 26 9											

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\* H.O.I. SEDIMENT CORES

Core No. 89 PC Station No. 139 Total Core Length 672

	11	11.	8			,,,,	9	.,1,		PLEIGFORENE	111	009	,,,,	710	 940		 7777
		S	Spondes			7											
		Siliceous	RinsloibsA														
	a.	Sil	2mo16f0														
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(80)	Biogenous Material	Snc	Discoasters				į,			t,				 			
SES	ioger	Calcareous	pteropods														 _
ESTIMATED ABUNDANCES (%)	m	Cal	sffazotonnsN	07	40	80	82	80	96	82	95						
D ABL		1	Forams	35	20	7	00	1	5	5	2						
IMATE		1	Clay	20	26	00	9	œ	2	00	2						
EST	prial	0	Volcanic		Ħ												
	*	Silt & Sand	Sectioes														
	dani	111	Micronodules	~	-	-		-	7								
	Inor		Detrital grains	~	-	Ħ	1	Ħ	Ħ	-	tr						
		1 1	SEDIMENT	calc ooze	calc ooze	nanno ooze	nanno ooze	nanno ooze	nanno ooze	nanno ooze	nano ooze						
			LEYEL	1 cm	100 cm	200 cm	300 cm	400 cm	500 cm	600 сп	670 cm						

Second .

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NANNO 002E 107R 6/4 1t yellowish brown v. homogeneous 83-165 cm.v. pale brown extensive mottling 165-182 341kker moister lutite with scattered forams G mottled Ship CHAIN Cruise 115 Leg 6 Sta 140 Core No 90PC.
Total Length 654 cm Lat 30.51.05 Long 38.223.0 Depth 3304mcm.
Core condition ExcELLENT Date Described 40MR.15 by 18 med.
Physiographic location ExcELLENT FLANK: VEMACHANNEL. CALC 002E
10YR 6/4 It yellowish brown
extensive v. pale brown mottling and marbling throughout
firm al silty lutite with abund, forems NANNO GOZE GRADES TO CALC GOZE
10YR 8/4 v. pate broom repeatedly grades to 7/4
10YR 8/4 v. pate broom repeatedly grades to 7/4
stiff plastic lutte with scattered forams
gradetical agreements 182-292 cm, 292-375 cm, 375, 499 cm Poge 1 of 1 CALC DOZE

CALC DOZE

1078 6/2 it gray and 7/4 v. pale brown
a gradutional series of conceve up laminations
stiff allty lutite with abund. forems 10YR 6/3 pale brown extemely abund, forams in firm lutite 6-83 Detailed Description VISUAL CORE DESCRIPTION FLOM-IN end of core CALC OOZE 494-500 182-494 83-182 9-0 and of core 1 1 1 0 1 100 1 1 1 1 1 1 1 Lithologic 1 7 0 1 1 nessoures

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 96 PC	Station No. 140
Ship: Chain	Expedition 115

					EST	ESTIMATED ABUNDANCES (%)	D ABL	INDANC	ES (					
		Ino	rgani	C Mat	Inorganic Material			81	Biggenous	S	Material	10		
			Silt	& San	Đ			Calo	Calcareous			Sil	Siliceous	5
LEVEL	SEDIMENT TYPE	Detrital grains	Micronodules	SelffoeS	Volcanic shards	Clay	2m6107	2 ( i 2 2 0 1 o n n s N	pteropods	Discoasters	0thers	2mots id	Radiolaria	Sponges
8	calc ooze	-	-			23	15	55			5			
100 cm	calc ooze	2	-			25	15	20			7			
200 cm	nanno ooze	Ħ	Ħ			2	œ	85			2			
300 cm	nanno ooze	-			-	9	10	80			2			
400 cm	nanno ooze	t	ä			00	5	85			2			
500 cm	calc ooze	2	7			12	01	70			9			
600 cm	calc ooze	5	ä			12	15	89			2			
652 cm	calc ooze	1	b			15	15	65			5			
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Ship CHAIN Cruise 115 Leg 6 Sta 140 Core No 90°CTotal Length 51 cm. Lat 30° 51.05 Long 38° 12.2°W Depth 3384 m.corr
Core condition EXIELERNT Date Described #MR17 by 18° m/c.
Physiographic location EASTERN FLANK: VEMB CHANNEL
Lithologic Page 1 of 1 451 VISUAL CORE DESCRIPTION

OLE CALC GOZE

LORR 6/3 pale brown

extremely abund. forams in firm hutite

GLE GOZE

GLE GOZE

LORR 6/4 1t yellowish brown

extensive v. pale brown motelling, marbling throughout firm a 1 silty lutite with abund. forams

end of core Detailed Description Ensurent 1 0-0 10 1101 Log

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

EXIECTENT DOTE DESCRIBED WALLS OF PORTS	Detailed Description	0-250 CALC 002E	10YR 6/4 It yellowish brown common white and v. pale brown mottling throughout, one v. well	formed concentric oval burrow 77-80 cm	0-5 or formar-rich it brownish gray layer grades into major unit	COLONZE 200-367 CALC GOZE 10YR 863 w. pale brown grades to 10YR 7/4 w. pale brown extensive intermottling of the two colors above stiff more plastic lutite with scattered forans G mortale.	367-558 CALC DAYE	when the property of the property of the pale brown 10% 8/4 v. pale brown 10% 8/4 v. pale brown feetensive intermostiling and marbling of colors above firm still buttle with abund. forams	end of core												
Core condition Ext	Lithologic	<del> </del>   <del> </del>   <del> </del>	18 1	1 6	100	0 10 1	1	000000000000000000000000000000000000000	8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	100	7	0 10	RESIDENCE OF TO TO	in a end of we	 •••	1	,,,,		1,	 1	
		E)		erial	5000	sinstoins sinstoibs8 Sponges	5	2										,			
90 PG	140	gth 51	NDANCES (%)	Biogenous Material	careous	Nannofossils Pteropods Discoasters Others	45	45													
Core No.	Station No.	Total Core Length	ESTIMATED ABUNDANCES (%)	rial		Volcantic shards yell) smenor	18 30	23 25													
	1			Inorganic Material	3116	Detrital grains Micronodules Zeolites	-	1 1													
Chain	Expedition 115	Leg No. 6				SEDIMENT	calc ooze	calc ooze													
Ship:	F	-																			

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 1

Station No. 91PC  Station No. 141  Station No. 141  Total Core Length 558  Total Core Lengt	Colocation EASTERN FLANK: VEMA CHANNEL	Detailed Description	O-55 CALC 00ZE	10YR 6/4 It yellowish brown extensive broad white mottling 38-48 cm	moist al silty lutte with scattered forams	Sy irregular	CALC 002E  ONR 6/2 It brownish gray moist silty furtice with v. abund. forans costs of 5-112  CALC 002E  CALC 002E  COMMON faint v. pale brown mottling throughout	1	repetitive lithology, this pilot core is suspected to be an example of a wire rebond repenerration.	lst penetration: 0-55 cm; 2nd 55-112 cm	0	-1		10	五						
Total Core No.   91PC	Physiograph	Lithologic	New rank	1	1		sepriods  \$  3    1    2    3    4    5    6    7    8    8    9    10	1	11111		1	1	1	1	4	1***	пп 			1	
Core No.  Included the state of			E			-	2mots t0	_	9	9	2	2	3	3	-		1	-	-	-	
[6414.60]	91PC	141	558	INDANCES (%)	Biogenous Material	+	Pteropods		07	82	06	85	20	82							
SEDIENT TYPE TYPE TYPE namno ooze namno ooze namno ooze namno ooze	-		Length 558		Biggenous Materi	Calcareous	Volcanic Shards Colay Forams Nannofossils Pteropods Discossiers	20 50	15	2	3	5	20	2							

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

VISUAL CORE DESCRIPTION

Poge 1 of 1

Ship GHAIN Cruise 115 Leg 6 Sta 144 Core No 92PC

Total Length 734 cm Lat 20° 25.7% Long 38° 593W Depth 3934mew.

Core condition Excellent Date Described 4MPRTS by Jourse

Physiographic location YEMA CHANNEL.

Resident - - -Lithologic

Detailed Description

O-714

CALC OOZE

INTR 6/3 pale brown grades to 6/4 It yellowish brown common to extensive v. pale brown, white, and it yellowish brown mottling throughout, a few black flecks can be seen 100-120 cm mottling throughout lutite with foram abund.varying all throughout from common to abund.

overall hue occasionally and gradually 118htens to 7/4 v. pale brown in the zones 230-255 cm, 290-330 cm, 520-580 cm, 600-620 cp, 680-718 cm.

18 81 3

Biogenous Material
Calcareous Siliceous

Inorganic Material Silt & Sand

ESTIMATED ABUNDANCES (%)

112

Total Core Length \_

141 91 PG

Station No. \_

Expedition 115

Leg No.

Chain

Ship:

Core No.

7007

Spondes

Radiolaria smotero Others

Discoasters

Clay

Volcanic

sə [npououɔ i̯Wi suleub Detrital

SEDIMENT

TYPE

LEVEL

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 1

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SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

Biggenous Material Siliceous

Inorganic Material Silt & Sand

SEDIMENT

TYPE

LEVEL

ESTIMATED ABUNDANCES (%) Total Core Length 80

144 92 PG

Station No.

xpedition 115

Leg No.

Chain

Ship:

Core No.

Page of I

səbuods

Radiolaria smoterd Others Discoasters

preropods

sfizzotonnsN

Forams

Clay

Volcanic

Seclites Micronodules Detrital grains

40 45

25

25

calc ooze calc ooze

79 CB

1 cm

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page / of /

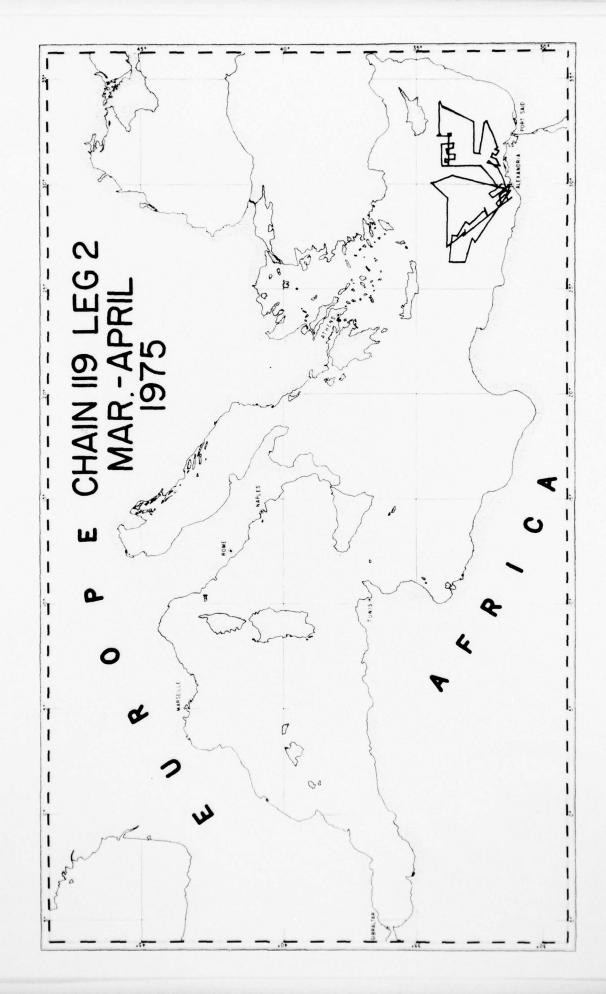
463

Core to   150   Station No.   159   Station No.   159   Station No.   159   Station No.   159   Station No.   159   Station No.   159   Station No.   150   Station	EXCELLENT Date Described 12 JULY 15 by R. M.G.IRR	Detailed Description		2.11 4/2 dark grayish brown moist very silty lutite	very small individual black specks throughout S textural horizontal	9-16	UNFOSS CLAY/DETAITUS  10VR 4/2 dark graytsh brown  10VR 4/2 dark graytsh brown  10VR 10VR 10VR 10VR 10VR 10VR 10VR 10VR	very silty lutite grades to silt graded bedding	S textural, inclined 30° 38-89	UNPOSS CLAYDETRITUS 10YR 4/2 dark grayish brown moist silty lutite	several I cm thick silt laminations, inclined 30° at 71, 8 84 cm	5, textural, inclined 10° 89-128	UNFOSS CLAY/DETRITUS 2.5Y 4/2 dark grayish brown	moist slift lutite several very thin wavy silt laminations 110-118 cm. end of core							
Station No. 159  Station No. 159  No. 8  Total Core No. 159  SEDIMENT  TYPE  T	Core condition EX. Physiographic location	ithologic	11 21 25	1.t 5.t 7.t		25.	347 117 114 541 541 541 541 541 541 541 541 541	-т-		,,,,,	£ 4	68				,	 ļ	7711	 	<b>J</b>	77
SEDIMENT  SEDIME										- 1	_	_			1			-		1	
SEDIMENT  TYPE  TY			-			i ceous			ţ	<b>b</b>											
SEDIMENT  TYPE  TY			E		rial	Siliceous	sinoteid Sinsfoibs8	-	tr	5											
SEDIMENT  SEDIME					Material	Siliceous	Others Diatoms Redioloss	-	tr	5											
SEDIMENT  SEDIME				(%)	S Materia		Discoasters Others Biatoms Radiolaria	-	ţ	5											
SEDIMENT  SEDIMENT  TYPE  Adetritus  Adetrit	3 60	159	78	ANCES (%)	S Materia		Pteropods Discoasters Others Sactoria	-	נ	5											
SEDIMENT  TYPE  Adetritus  Adetri	33 66	1	78	ABUNDANCES (%)	S Materia		Vannofossils Pteropods Discoasters Others Sadiolaria	-	В	5											
SEDIMENT  TYPE  Adetritus  Adetri	. !	1	78	ATED ABUNDANCES (%)	S Materia		smanof 2 fizzononán Pteropods 2 scoasters 2 scoasters 2 schoré	b		11											
SEDIMENT TYPE  Wafoss clay/det 4  unfoss clay/det 4  unfoss clay/det 4	. !	1	78	ESTIMATED ABUNDANCES (%)	Biogenous Materia	Calcareous	Forams Nannofossils Pteropods Discoasters Others Diatoms Radiolaria	63 tr		53 tr tr											
SEDIMENT TYPE  TYPE  detritus  detritus  B3  unfoss clay/det 4,	. !	1	78	ESTIMATED ABUNDANCES (%)	Biogenous Materia	Calcareous	Volcanic Shards Clay Forams Namnofossils Pteropods Discoasters Others Diatoms	63 tr		53 tr tr											
SEDIMENT TYPE  TYPE  detritus  detritus  B3  unfoss clay/det 4,	. !	1	78	ESTIMATED ABUNDANCES (%)	Biogenous Materia	Calcareous	Zeolites  Volcanic Shards  Clay  Forams  Nannofossils Pteropods  Discoasters  Others  Diatoms	63 tr	15	53 tr tr											
SEDIMENT TYPE TYPE detritus unfoss clay/det	. !	1	78	ESTIMATED ABUNDANCES (%)	Biogenous Materia	Calcareous	Micronodules Zeolites Yolcanic Snards Clay Rorams Nannofossils Discoasters Others Diatoms	2 tr 63	15	tr 53											
a 0 m	. !	1	78	ESTIMATED ABUNDANCES (%)	Biogenous Materia	Calcareous	Micronodules Zeolites Volcanic Shards Cilay Ronams Nannofossils Pteropods Discoasters Others Others	2 tr 63	tr 15	2 tr 53 tr fr											
Ship Expe Leg cm 2 cm 77 cm	Chain Core No.	115 Station No.	8 Total Core Length 78	ESTIMATED ABUNDANCES (%)	Biogenous Materia	Calcareous	Detrital  Micronodules  Zeolites  Volcanic shards  Clay  Ronans  Preropods  Discoasters	35 2 tr 63	detritus 85 tr 15	45 2 tr 53 tr tr											

laminations, inclined 30° at 71, 81-

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

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					Siliceous	Radiolaria																		
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	1	128	9.6	S	Snc	Discoasters																		
	0	7	CES	Biggenous	Calcareous	pteropods																		
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1	0.	e Le	D AB	1		Forams																		
Core No.	Station No.	Total Core Length	ESTIMATED ABUNDANCES (%)			Clay	47	6	53	94	41							Ī						
Cone	Stat	Tota	EST	Material	9	Volcanic sbrands	9	9	3	4	4													
					& Sand	Zeolites																		
				Inorganic	Silt &	Mi cronodul es	2	2	4	2	5	•												
-				Ino		Detrital grains	45	80	07	45	20													
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Ship:	Exped	Leg No.				LEVEL	1 cm	35 сп	50 сш	80 cm	127 сш													
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***********	************	A A S.	SOCARE	141.22	9 141.23 0034	E IS H	141.23	141.12	141.12	141011	03 CM	141.21	1 141011	HASH	141,20 0003	YPE INCL	141.10	142.19 0005	142.19	
***	* * * *		1 X Y Y	6	6 3		6	5	1	1	1 97-1					:	e u	<u>س</u>	m	
	7		LANGITUD	32 17.2	33 24.9	DEL NARY SED	33 24.9	32 32.8	32 1.11E	31 47.2	ELL HASH!	31 57.5	31 34.8	PHIMARILY SWELL	8.2'N 30 58.0'F	SECONDARY SED	30	N	53	
RETRIEVA	TON 03117		FIX LANGITUDE TYPE	2 32.61N	32 17.3.N 33 24.9.E	à	2 17.3'N	1 51.3.N	7 42.2.7	1 46.1.2	SHELI	32 3.7.N 31 57.51E	7 45.317	20	32 8.2'N	SF	31 36.91V	1 16.01	1 16.01	
STATION DATA RETRIEVAL	E: 17:07		A	`	x	**S+V	75 4 8 3	75 4 8 3	75 4 9 3	7549 3	*	7	ת		10		្ន	11	11	
ST	OA		VICE YRMBG	90	15 75 4	**CBMME	9	90		13	**CBMME	50	13	**CBMME	00	**CBMM	20	30	13	
:	:		SAMPLA		0000										0000					
************	************		SAMPLE SAMPLE CRUISE LEG STATION NUMBER		0143		0143	0145	0154	0156	1	0161	0166	,	0183		0185	0187	0137	
*****	*****		SE LEG	C	2		N	n	N	n,		N	2		N		N	N	N	
			CRUI	119	119															
			15	3	1		ZIO	Z	ZI	Z		210	210		Z		Z	Z	Z L U	

Page 2 of 2 Core No. / PC VISUAL CORE DESCRIPTION

Detailed Description 263-277 Lithologic L09

slightly silty lutite, firm

01 Leg 2 Sta.

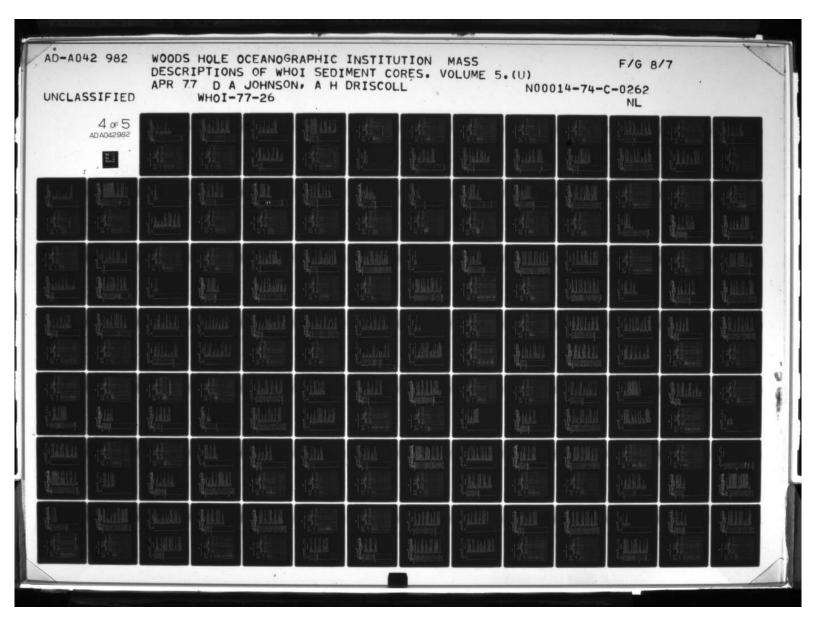
Ship CHAIN Cruise 119

10 YR 4/1 dark gray no mottling CALC CLAY

CALC CLAY GRADES TO HIGHLY CALC CLAY 10 YR 4/1 dark gray, turns to 6/2 light brownish gray (  $\sim\!386~{\rm cm})$ 

end of core

<del>հայտարակապատակապատիակավատակատականակապատի</del>



SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page / of /

472 VISUAL CORE DESCRIPTION

VISUAL COME DESCRIPTION	Cruise "19 Leg & Sta // Core No & PC  Cm. Lat. 23.23 N Long. 28.49.3 E Depth 1827 care.  Latlind  Date Described & Sat. 35 B. H. Earner  cation Communication Space No. 10 Accommender	Detailed Description		0-3 CALC DOZE	10 YR 6/4 light yellow brown	no mottling silty lutite	discontinuous, dark gray-brown wedges in top 2 cm -	scenewhat disturbed up to 5 cm S 3-7	CALC OOZE  10 YR 6/2 Light olive gray no morting very silty lutite laminaced	7-17 s, concave up	5 V 5/2 olive gray no mottling	very silty lutite with few forams laminated from 2-5 mm thick-porite nodule at 10	(2 x 2 mm) irregular, S	17-821 CALC 002E	5 Y 6/2 light olive gray no mottling	very silty lutite	end of core										
VISUAL CO	Ship CHAIN Cruise "9  Total Length B2/ cm. Lat-2/ Core condition "19/(ind. Physiographic location Continuental	Lithologic	RENTOUNE TO THE TOTAL TOTAL	1		+ + + + + + + + + + + + + + + + + + + +		1	1		1	7 1 1 2 2	nıı	+	3	1	34 1	+	-	z	1	+1	\ \ \ \	1	+ + **********************************	Cotton of core B21	
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							Sno		səbuods				-											-	-	-	-
				E			Siliceous		Radiolaria		-	-	-	-							+	+	+	+	+	+	+
						erial	S		Diatoms		-		-	-		-				+	+	+	-	+	+	+	+
				4		Mate	+		Others	4	2	00	2	-	6	4	0	7	9	+	-	+	+	+	+-	+	+
	ÆS	1	1	674	(%)	Biogenous Material	Snoa		Discoasters			-	-		ä	-				+	+	+	+	+	+	+	+
	F C0	1 PC	01	5	ABUNDANCES (%)	Biog	Calcareous		Nanhofossi Pteropods	07	H	25 tr	10 tr	-		10 tr	3 tr	T .	14 tr	+	+	+	+	+	+	+	1
	DIME		1	Length	ABUN		-		Forams	7	tr 5	ti.	1	tr 5	tr 7	1	5	5		+	+	+	+	+	+	+	+
	1. SE	9.	No.	Core	ESTIMATED	H	1	-	Clay	54	92 t	99	85 t	96	89	81 t	92 t	87 t	78 1	-	+	+	+	+	+	+	1
	.н.	Core No.	Station No.	Total Core	ESTIP	a.	T	st	Volcanic Share	5	7	-	00	-	00	20	6	œ	tr 7	+	+	+	+	+	+-	+	+
		0	01	_		Inorganic Material	and				-	-	-	-		-	-			-	-	+	+	+	-	+	1
	PT10N					nic M	t & S		zet i foeZ	-	4	Į,	-	-		-	-			-	+	+	+	+	+	+	-
	ESCRI	1				orga	Sil		grait Micronodul		-	-	-	-	-	-	-			-	-	+	+	-	+	+	1
	30		1			I			Detrital	-	tr	-	13	11	T.	2	T.	1	-								
	SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES	CHN	Expedition 119	10				SEDIMENT	TYPE	calc ooze	calc clay	calc ooze	calc clay	calc clay	calc clay	calc clay	calc clay	calc clay	highly calc clay								
		Ship:	Expe	Leg No.					רבאנו	1	15	32	99	80	180	258	275	375	673								

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

#### VISUAL CORE DESCRIPTION

Page / of 3

Lot 32° 078' N Long 21° 24Z' & Depth 2778 com m.
Lot 32° 078' N Long 21° 24Z' & Depth 2778 com m.
Date Described 3 Dec 25 by 7 Farmer

R Contine with Stope NN or Alterapera, Eavet - Med. Sea Total Length 573 cm. Core condition executions Ship CHAIN Cruise

Physiographic location Lower Couring with Slope NW or Alexander, Easyst - Med Sea Lithologic	Detailed Description	0-8	CALC OOZE 10 YR 6/4 light vellow brown	no mottling	top 40 cm are disturbed with distorted laminations	distorted contact	CALC GOZE 10 YR 7/4 very pale brown	no mottling apparent slick lutite grading into 1 cm of laminated foram	sand distorted contact	14-36 CALC OOZE	yellow	no motiling silty lutite, forams grade from occasional to common	29-30 distorted dark yellow brown (10 YR 4/4) band; 34 - thin, distorted band of lower unit	distorted contact	CALC OOZE	5 Y 3/2 dark olive gray	scarrered small light gray mottling 39-44 slightly silty lutite, scattered forams and shell	fragments 45-47 void, sapropel-like material with very fine	white laminations	very gradational	CALC OOZE	light brownish yellow (10 YR 6/4) to 10 YR 6/3	pale brown, light olive brown 2.5 Y 5/6 scattered mortling from 69-81 of above unit: common	from 118-121 of above unit	slightly silty lutite, scattered forams and shell	gradational						
ation		1	1	1	1,	1	1	1 1	1	1	1	1	1		4	1		1	1	1.				-	- 1		_	1.	-		- 1	7
ic loc		1 •	1	9	1	1	1	1 1	10	1 1	1 1	1	10	1	1	1	1	1 4	1	4 4	٠ ٢			1	. 1	. +	. 1		1.	+	1	
Physiographic Lithologic	6	1.	1	1	. 1	9	1 -	1	10	1 1	1 1	1	. ·1	1	1	+	1	1 1	H		H					. 1	. 4					-
Physic Litho	Log	1,	11	1	1 1	1	1 -		40	1 1	11	1	11	1	1	1	1	1 1	4	1 4		: :		4	.4	• .	.		† ·	. 1		
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			_		Mate	-			0410	2	18	00	2 2	2	7		-	-	+	-		-	+	+			-	+	+	+	-	
	1	1	821	(%)	Biggenous	-		_	Disco	5	נ	1		5	Ħ	_	-	-	+	-		-	+	+	-		-	+	+	+	-	
2 PC		1	5	ABUNDANCES (%)	Biogenou	-			Nanne	65 t	40	20	+-	200	55 t	_	-	+	+			-	+	+			-	+	+	+	$\dashv$	
	1	=	Length			-		Smano		-	1	-		7	2 5		-	+	+			+	t	+			-	+	+	+	$\dashv$	
9		on No	Core	ESTIMATED	+	<u></u>		Kelo		32	41	12		20	35		-	+	+			-	+	+			-	+	+	+	-	
ov et o		Station No.	Total Core	ESTI	lal	T	sput	eys	yo Lov	tr 3	4	-	-	+			-		-				+	+			-	+	+	1		
					Inorganic Material	-		-	Losz	-	-	-	-	+	1		-	-	-	1			-	+		-	-	+	+	+	1	
					anic It &	-	səir	-	Micro		-	-		-	+		-	-	+				-	+		-	-	+	+	+		
					Inorg	-	suit	dra	Detr	2	Ħ	1	-	+	1		-	-	+					1			-	+	+	1		
CHN		110m 113	2				SEDIMENT	344		calc ooze	calc ooze		-	9200 0785	calc ooze									-								
Ship:		Expedition	Leg No.				LEVEL			1 0	2 6			5	820 Ca																	

1.50

laminations (2-10 mm) of dark gray brown (2.5 Y 4/2) silt-fine sand (CALC 002E/DETRITUS) and olive (5 Y 4/4) silty lutite (HIGHIX CALC CIAY) 3 86 Page 3 of 3 flow in of above material, sandy lutite (CALC GOZE) medium-coarse sand 326-330 pale brown lutite clast mixed with coarse sand medium sand 340-355 intermixed gradational bands of dark gray brown 2.5 Y 4/2 Core No. fine to medium homogeneous detrital sand Detailed Description 307-314
CALC OOZE
5 Y 6/2 light olive gray
no mottling
silty lutite with scattered forams 13 2.5 Y 5/4 light olive brown no mottling dark gray brown 2.5 Y 4/2 Leg 2 Sta. CALC OOZE/DETRITUS
2.5 Y 4/4 olive brown no mottling CALC OOZE/DETRITUS DETRITUS/CALC 00ZE 476 VISUAL CORE DESCRIPTION end of core no mottling 314-330 367-463 436-543 543-573 Cruise 119 Ship CHAIN Lithologic 

Ship	CHN				Core No.	9		3 PC	1							Core condition <u>stocker</u> Physiographic location <u>fewer</u> Lithologic	tion Ohic loc	ation sewe
Expe	Expedition 119	1			Station No.	on No	-	13							P. C. C. C. C.	Log	1	Г
Leg No.	No. 2	1			Total	Core	Total Core Length	th		573		E				1 1	31 4 31 6	1
					ESTI	MATEC	ESTIMATED ABUNDANCES (%)	DANCE	55 (8							4.	4	
		Inor	ganic	Inorganic Material	rial	+	1	Bic	Biggenous	S	Material	-		7	ų.	10	11	11
			111	Sand	I	1	1	Calc	Calcareous	. 1	-	1110	eons	1	T	1	1 4 1	1
90	SEDIMENT	su	sə		sp			st		s				A >	\$	11	11	, 1
	TYPE	Detrital grai	Mi cronodul	2eolites	Volcanic shan	Clay	Forams	izzotonnsk	Pteropods	Discoaster	0thers	Diatoms	Sponges	M H H M	REISTOKENE	1 1 1 1 2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	11911
2	calc ooze	1			ı	7	-11	75	2	b	2		-	-1				
13	calc ooze	3				- 11	25	51	2		00		1	,,,				_
50	calc ooze	ţ			tr 2	27	4	55	2	4 /	\*	-		~	5			
161	calc ooze	H				00	35	32	2		23							_
250	calc ooze	ä			7	07	3 4	45	-	0/	<u>\*</u>			00				
256	calc ooze	tr			2 5	52	2 4	04	E	11	4			=======================================	1			
300	calc ooze	-	1			7	07	8	20		29			Ħ		,,,,		
321	calc ooze/ detritus	45				80	10	2	7		31	-						
360	detritus/	65			-	10					25	-						
51.5	calc coze/	30				4	·		-	1	, v			:	, Tro			_
482	highly calc clay	2			tr /		<b>B</b>	2	-	-	20	-	-	1 5				
572	calc ooze	2			7	47		11		1	50	-	-	7	,,,,,			
						1	1	1	+	+		-	-					
		*brown	to	lack	*brown to black "organic" material	ic" a	ateri	lal	+	1	+	1	+	TI	,,,,			
			1	T		1	+	1	+	+	+	-	+	T	1			
		1	-															

#### ESCRIPTION

Lot 32' 07 8' M Long 38" 347" & Depth 2779 corn.

Lot 32' 07 8' M Long 38" 347" & Depth 2779 corn.

Lot 32' 07 8' M Long 38" 347" & Depth 2779 corn.

Lot Contributed Stope NN of Alternative, Egypt Ned Su Detailed Description Due to a repetitious sequence of lithologies, multiple penetration (pilot core rebound) is suspected. Excepting the top 35 cm (PG) which were not recovered by the piston core, there is excellent correlation between the lithologies of the 2 cores, with the pilot compacted to 1/2 the length of the piston core (35-126 PG equals 0-1/5 PC). However, the lowest is cm of the pilot repeat the sequence previously sampled 7 cm of foram sand at this depth. Thus, after the PG "rebounded" and began its second penetration, it apparent until 65 cm PG (due to the inertia of the mud already recovered during the previous penetration).

5 Y 3/2 dark olive gray scattered small very pale brown mottles soft lutite with pteropods sapropel-like material with very fine laminae, small void at 18 cm CALC OOZE

grades from 5 Y 5/2 olive gray to 10 YR 7/4 very pale brown to 10 YR 6/4 light yellow brown scattered (18-26) motifing of above unit silty lutite with scattered pteropods and forams laminations of foram silt/sand 40, 42-43, dark brown streaks intermixed 48-51 CALC OOZE G-8-53

CALC GOZE WITH PYRITE 5 Y 3/2 dark olive gray small, very pale brown mottles common 56-64 soft lutite with scattered forams and pteropods sapropel-like material

grades from 5 Y 5/2 olive gray to 10 YR 7/4 very pale brown CALC OOZE

no mottling silty lutie with scattered forams slightly darker band 88-92 cm and 2.5 Y 5/6 light olive brown 102-104.

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

CH Total Core Length 141 3 PG Station No. 13 Core No. 119 CHIN Expedition Leg No. Ship:

					ES	TIMATE	ED AB	ESTIMATED ABUNDANCES (%)	CES (	96				
		Inc	rgani	Inorganic Material	erial			80	iogen	Snor	Biogenous Material	al		
			Silt	Silt & Sand	P			Cal	Calcareous	Sno		Sil	Siliceous	S
LEVEL	SEDIMENT TYPE	Detrital snisap	Mi cronodul es	zeol i tes	Volcanic sbasids	Clay	Rorams	2[izzo]onn5N	Pteropods	Discoasters	sap410	SmoteiO	Redioleria	sabuods
1	calc ooze	Ħ			1	0,5	2	51	1		500	1		
50	calc ooze w/	Ħ	15			7	5	65	-		1			
65	calc ooze w/	Ħ				15	4	45	-		2,5			
80	namo ooze	Ħ				2	-	90	Ħ	5	4			
115	calc ooze	Ħ				30	2	58	Ħ	Ħ	10			
124	calc ooze	Ħ				30	S	84	2	Ħ	15			
140	calc ooze	2				12	-	3	-		20			
		*brown sapropelic ("organic") material	sapre	pelic	("out	ganic	() Bu	teria	1					

473 VISUAL CORE DESCRIPTION

Page 2 of 2

Core No. 3 P6 Leg - Sta. /3

Ship CHAIN Cruise 119

Lithologic Log

110-126
CALC OOZE
CALC OOZE
CALC OOZE
10 YR 6/3 pale brown grades to 7/4 very pale brown sactered pale brown mottles 119-126 cm smooth, silty lutite with occasional forams 5
126-141
repeat of sequence from 68-110
end of core Detailed Description

48 VISUAL CORE DESCRIPTION

Page of 1

Ship <u>Crain</u> Cruise 119 Leg 2 Sto. 15 Core No. 4PC.

Total Length <u>532</u> cm. Lat 32 471/N Long 37° 484's Depth 3130 care.

Core condition <u>craftled</u>, <u>stratigraph</u> sugget Described <u>16 Nor 15</u> by 7. Farmer.

Physiographic location Herodottes Basin Fastern Med. Sea.

RESPONDENCE: The service of the serv

19-25
CALC OOZE
TAY 7/3 very pale brown and 6/2 light brownish gray lutte
19-26 original laminations are folded and distorted, includes wedge of 10 YR 3/2 very dark gray-brown slick lutie, 26-29 fairly true

001

1

0

*g* mmmmmm

29-56
CALC OOXE/DETRITUS
10 YR 4/2 dark grayish brown - somewhat lighter to-wards bottom
couple small black smears

couple small black smears
grades from slick lutite to medium sand
56-532
CALC OOZE
10 YR 4/2 dark grayish brown
soupy lutite

10 YR 4/2 dark grayish brown soupy lutite flow in This entire core is suspect because of the very poor correlation with the pilot. In particular, the presence of fine sand at the top (absent in pilot) and the absence of a sapropelic layer between the third and fourth unit (present from 37-50 in pilot) are end of core

300

bottom of were 532

200

485

# SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

		E
Core No. 4 PC	Station No. 15	Total Core Length 532
CHAIN	no 119	2
Ship:	Expedition 11	Leg No.

SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  STATE			Ino	roani	C Mat	1.2	5	2	al Biogenou	iogen	ons h	Biogenous Material	[8]		
SEDIMENT  TYPE  TY				Silt	& San	P			Cal	careo	Sn		511	iceo	S
calc ocze/ 50 17 2 1	LEVEL	SEDIMENT			Zeolites	Volcanic shards	Clay	2ms107	2 f i 2 2 0 1 on n 5 M	Pteropods	Discoasters	sradt0	Diatoms	Radiolaria	Spondes
calc coze 1 5 29 30 5  calc coze/ detritus 15 30 2 43 2  calc coze 7 35 rr 54  calc coze 7 35 rr 54		calc ooze/ detritus	50					17	2	-		30			
Calc coze   30	18	calc ooze	1				5	59	30	2		30			
calc coze  vith deritus  15  30  2  43  2  calc coze  7  35  rr  54	32	calc coze/ detritus	30				1	23	4	5		37			
Calc coze 7 35 rr 54	70	calc ooze	15				30	2	43	2		œ			
	531	calc ooze	7				35	ä				4			

VISUAL CORE DESCRIPTION

Page / of /

Ship CHAIN Cruise 1/9 Leg 2 Sto. 15 Core No. 4 P.a.

Total Length 106 cm. Lat. 32 471/N Long 27 48 4 F Depth 3130 cm.m.

Core condition tiedland Date Described 16 Nov 25 by T Facmer
Physiographic location Herodotus Basin, Eastern Med. Sea Core No 4 Ps Lithologic

Detailed Description 0-5 **デェバエバエ** 

Hey forene

void produced as top sediment was compacted because no end cap on core liner 2-15

CALC OOZE

10 YR 7/3 very pale brown
Light gray mortles down to 8 cm, fine, light gray and
red-brown laminae, 8-15
smooth, slick lutite
compaction features evident 2-6
S horizontal
15-37

bottom of core

Plentecent

CALC 002E

10 YR 6/2 light brownish gray
no mortifing, but innumerable tiny black flecks
smooth, slick lutite with cross-bedded, laminated foram
sand 32-37

CALC OOZE 10 YR 6/4 light yellowish brown, slightly paler near S, slightly inclined 37-50

subdued grayish mottles common 46-50 slightly silty lutite with common forams 41 cm - 3 mm yellow-brown bed of volcanic 5, slightly inclined

CALC OOZE (sapropel)
2.5 Y 3/2 very dark grayish brown
slick lutite with common forams and pteropods
5, horizontal
58-106

CALC CLAY
5 X 3/2 dark olive gray
homogeneous throughout
slick, smooth lutite
90 - 1 cm bed of above unit
end of core

<u>\$</u>

484

# SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

E 106 2 PG Total Core Length 4 Station No. Core No. CHN Expedition 119 Leg No. \_ Ship:

			RIHRKE		Ħ			12	n	
		SI	Spondes		1					
		Siliceous	Radiolaria							
	اء	Sil	Smoterd							
	Material		Others	10	12	9	2	œ	œ	
94		1	Discoasters	5	Ħ					
CES (	Biggenous	Calcareous	Pteropods	-	9		-	-		
ESTIMATED ABUNDANCES (%)	8	Cal	sfizzotonnsM	30	28	2	70	62	٥	
D AB			2m6Y07	5	50	-	2	4	ä	
IMATE			Clay	53	2		21	10	71	
ES	Material	P	Volcanic shards			92			2	
	C Mat	Silt & Sand	Zeolites							
	qani	11	Micronodules						5	
	Inor		Detrital grains	1	2	2	-	4	10	
			SEDIMENT TYPE	calc ooze	calc ooze (foram sand)	volcanic ash	calc ooze	calc ooze	calc clay	
			LEVEL	4.5	32	41	94	55	105	

Ship CMAIN Cruise 1/9 Leg 2 Sto. 17 Core No. 5 PC.

Total Length 373 cm. Lat 33. 197 N. Long 22. 05.2. E Depth 2698 corns.

Core condition exelland

Date Described 1 Uni 76by Thansa.

Physiographic location Loner Saun Flank, Mediterranean Kidse, E. MEO. Sen

Detailed Description Lithologic L09 Neishene

CALC OOZE 10 YR 6/6 brownish yellow silty lutite S 0-1

CALC OOZE 9-1

5 Y 7/1 light gray homogeneous throughout silty lutite with scattered forams very irregular

3

very homogeneous throughout stiff silly lutite with scattered forams void at 31, was initially bigger but has been filled by slumping of white unit sharp, void at 30-31 5 Y 8/1 white NANNO OOZE

5 Y 7/1 light gray grades into 6/1 gray  $\sim 53$  cm a few mottles of both white and dark olive gray firm, silty lutite with scattered forams 31-53 and abundant forams 53-85 CALC OOZE

چ ا

85-348

300

Mayarane

OALG 002E

5 Y 3/2 dark olive gray, 5 Y 8/1 white, 7/1 light gray, and 6/1 gray
whole core has disturbed appearance, but it is extremely apparent below 85 where intense marbling occurrs between white, 1ight gray and gray 168-169, 220-222, 271-275, 283-286, 294-300, 34-352
firm silty lutte with scattered and common forams, abundant from 95-110

CALC OOZE 348-373

sapropel-like wedges (sheared and distorted beds?)

Sotton of were: 373 FLOW

486

# SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

E 373 Total Core Length Core No. 5 PC Station No. 17 Expedition 119 CHN Ship: Leg No.

ESTIMATED ABUNDANCES (%)	Biogenous Material	Forams Nahnofossils Pteropods Officesters Others Radiolaria Radiolaria	32 3 60 tr 3	tr 95 tr tr 1	24 15 53 1 4	1 88 tr tr 1	41* 7 45* tr tr 2	24 3 70 tr tr 3		and names are stained by a light-to-			
ESTIN	Inorganic Material	Detrital  grains  Micronodules  Zeolites  Volcanic  Shards	2 tr tr	tr	1	1	TI.	11		about 1/2 of the clay and dark brown discoloration			
		SEDIMENT TYPE	calc ooze	nanno ooze	calc ooze	nanno ooze	calc ooze	calc ooze	*				
		LEVEL	-	18	80	160	272	372					

H

Ship <u>CAAIN</u> Cruise //9 Leg 2 Sto. //7 Core No. 5 Pos.

Total Length 97 cm. Lat 33 10.7 M Long 12 05.2 6 Depth 2698 cer. m.

Core condition 4xc4/leaf Date Described 12 Nov. 75 by 24 Garner Physiographic location 5 Swart. Frank, Mg.D. Riphe E. Mg.D. S.P.A.

Detailed Description 11 1 17 and of core 1 1 Lithologic L09 Maybeene Meribuene

0-5.5
NANNO 002E
10 YR 6/4 light yellow brown
silty lutite with scattered forams
5, horizontal
GALC 002E

10 YR 7/3 very pale brown heavily mottled with above unit silty lutite with scattered forams, gradational contact

11-82

(ALC OOZE

10 YR 6/3 pale brown, grades generally into 10 YR 5/6

yellow-brown, but an array of intermediate shades are
present in the laminations which vary from 3 nm to several cm; trends back to 6/4 light yellow brown and pale
brown from 61-81 cm

very faint mottles are scattered throughout the subdued laminations

silty lutite with scattered forams 55-56 very firm but crumbly bed of calc ooze with vol-canic ash - very gradational contact

CALC OOZE 82-97

10 YR 6/2 light brownish-gray, grades smoothly into 7/2 light gray as few very dark gray fine laminae and a couple medium size mottles of same color silty lutite with scattered forams end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. CHN Expedition 119 Ship:

Station No. 17

5 PG

E 97 Total Core Length Leg No.

						ESTIMATED ABUNDANCES (%)	D ABI	JNDAN	ES (	96			1	
		Ino	rgani	Inorganic Mate	Material			8	ogen	Biogenous Material	ateri	٦	-	
			Silt	& San	P			Cal	Calcareous	Sn		511	Siliceous	SI
LEVEL	SEDIMENT	[61iv190] znisvg	Micronodules	Zeolites	Volcanic sbrads	CJay	2m6107	sfissofonnsM	pteropods	Discoasters	Others	Diatoms	Radiolaria	Sponges
-	nanno ooze	Ħ	ä		Ħ	19	2	75	2		2			
13	calc ooze	2	Ħ			18	2	75	Ħ	ij	3			
55.5	highly calc clay	Ħ	ä		<b>*</b> 5	71	Ħ	20	5		4			
95	calc ooze	3				42	7	70	-	Ħ	10			
		* very fine,	fine,		silicious needles	need	les							

19 Leg 2 Sta. 22 Core No 6 PC Lat 33 15.6 N Long 26 009 E Depth 2372 core. Physiographic location MEDITERRANEAN Ribbe EASTERN MED. SEA Core No 6 PC Cruise 119 excellent Total Length 697 CHN

Detailed Description Lithologic

CALC OOZE 0-100 1> Pleisteane

subtle gradational banding (~2 cm wide) within the color 10 YR 6/4 light yellow brown, fewer bands of 10 YR 7/4 very pale brown in top 25 cm few mottles throughout silty lutite with occasional pteropods and forams 14-15 crumbly layer, lutite, dark brown; 39-40 subducd 31

101

grayish band 1,111 1 1,111 1 1,111 1 1,111 1 1,111 1

100-108 HIGHLY CALC CLAY WITH VOLCANIC ASH 10 YR 3/2 very dark gray brown no mottling crumbly, semi-lithified lutite

10 YR 6/3 pale brown and 10 YR 3/2 very dark gray brown (in fine laminations?) smeared together with slight influence of lower unit slightly silty lutte CALC OOZE 108-113

+

1

1 1

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1

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1

4

CALC OOZE 1 1

1-10 mm laminations of 10 YR 5/6 and 5/8 yellowish brown with a few  $\underline{\text{very}}$  fine gray to white laminations at bottom slightly silty lutite, scattered forams

CALC OOZE 5 Y 3/2 dark olive gray few pale brown mottles slightly silty lutite 117-119

+

G

+0+0

+

CALC 002E
5 Y 6/1 gray to light gray
scattered, very dark gray-brown mottles
silty luite with scattered forams only at top, and
few pteropods 119-128 1++ 10101 11 1 1 1 1 1 1 1 1

sharp, mottled with lower unit

1

1.

+

1

1

+

gradational banded unit primarily of 10 YR 7/3 very pale browns with 10 YR 6/2 light brownish gray 164-174 medium light gray mottles 174-177 silty lutite with scattered forams except abundant 202-207 and common pteropods 169-174 CALC OOZE 128-209

+<sub>1</sub>,+ +<sub>1</sub>,+ +<sub>1</sub>,+

+ + + +

10

18

+

VISUAL CORE DESCRIPTION

of 3 Poge 2

Core No. 22 Leg 2 Sta 611 Cruise Ship OHN

Lithologic

Detailed Description

abundant small pale brown mottles 209-218 (or incom-10 YR 2.5/1 black becomes slightly browner in lower plete microlams?) CALC CLAY 209-232 9

232-349 - - CALC OOZE

5 Y 7/1 light gray grades into ( 283 cm) 10 YR 6/3 pale
brown which grades to very pale brown at 335 cm
abundant medium gray mottles 222-283 and scattered mottles of pale brown from 330-350 firm lutite with scattered forams and few pteropods very fine humus texture (organic lutite) sapropelic material 1 +

349-359 +(F404 WI(+ + Pleythenc

CALC OOZE
2.5 Y 4/2 dark grayish brown in somewhat disturbed pattern with 10 YR 8/2 grayish brown a few mottles of above color slightly silty lutite grades into a silt 359-362 tottor of core 697

CALC OOZE 5 Y 6/2 light olive gray no mottles slightly silty lutite

CALC OOZE 362-378

5 Y 3/2 dark olive gray

firm, very silty lutite with scattered forams sapropel with extremely fine microlaminations (?) 368no mottles

378-407

5 Y 7/1 light gray grading to 10 YR 7/3 very pale brown a very few small black mottles firm lutite with few forams OOZE

S, bottom end of section 3 407-421

CALC OOZE

5 Y 3/2 dark olive gray abundant mottles grading to few very pale brown mottles (incomplete microlaminations?) 407-414 very fine humus texture with scattered forams except 418-419 abundant

sapropelic material S

Page 1

000 Core No. 22 7

Sta

Leg

611

CHAIN Cruise

Ship

Lithologic 607

Detailed Description

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

CHN 119 Expedition Ship:

PC 9 Station No. Core No.

Leg No.

grades from 5 Y 6/1 gray to 7/2 light gray to 6/2 light olive gray with subdued banding nortles common 425-427; abundant very subdued small mottles 439-448 cm stiff lutite, forams increase from few to abundant (438-

OOZE

421-448

5 Y 3/2 dark olive gray 456-460 abundant, very pale small brown mottles very sity organic lutite sapropel-like material with subdued fine laminations (422-460); irregular wedges of 10 YR 4/2 dark grayish brown (448-452)

ALC OOZE

095-855

grades from 5 Y 6/1 gray to light gray (6/2) to 10 YR 6/3 pale brown, 7/4 light gray 463-465 5 Y 6/1 small mottles common firm lutite with few forams, except 477-483 common

CALC GOZE

169 Total Core Length

E

Second tes	Clay A	MATED ABUN	MATED ABUNDANCES  Porams  Nannofossils  Oared  Nannofossils  Preropods	MATED ABUNDANCES (**)  Forams  Annothers  Calculations  Annothers  Calculations  Annothers  Calculations  Annothers  Calculations  Annothers  Calculations	ESTI	anic Material	lt & Sand	Zeolites Shards Shards
MI Cronodules	ones los	ones los	ones los	ESTIMATED ABUNDANCES (%)  And Can't Consider Con		Inorgar	Silt	Detrital grains RefubonovaiM

		2115	STIL & SAND	0			Ca	Laicareous	Sni		5
SEDIMENT	Detrital grains	Micronodules	Zeolites	spanic shards	Clay	Forams	s lis so to a na N	Pteropods	Discoasters	0thers	Diatoms
calc ooze	7	H			32	e	07	1		16	
highly calc	t.r			20	09	Ħ	Ħ			20	
highly calc clay w/vol.ash		r.		15	55	Ħ	00	E		21	

sabuods

14.5	clay w/vol.ash	tr		20	09	tr tr	tr			20
1	highly calc clay w/vol.ash 1		t.	15	55	tr 8	00	11		21
	calc ooze	Ħ	1		07	40 3 50	50	-	tr 6	9
	calc ooze	7			07	40 2 50	20	ч		00
	0 000 0 000	1			7.3	1	73 77 79 13	1	1	1.3

tr

7

tr

15

36 1 calc ooze calc ooze calc ooze

> 325 352

244

CALC 002E

10 YR 5/1 gray grading to 6/2 light brownish gray to bands of various pale browns (6/3), bands of 6/4 and 5/4 yellow brown also present mottles small gray 5/1 mottles 487-489; small mottles of above colors scattered to common in many

5 Y 3/2 dark olive gray scattered small very pale brown mottles silty organic lutite sapropelic material

487-670

CALC OOZE

<del>antonfuntantuntuntuntun</del>tuntuntuntuntuntuntuntuntuntuntuntuntun

10

tr

65

20 30

> LT H calc coze

45 10 37

10. 4

1 tr

calc coze

370

scriff, slightly silty lutite with few forams, except common at 585, 577-591, 650-660 formon at 581-586 gray layer similar to previous ones that underlie dark organic beds - but no dark unit above it

calc ooze

\*607

(contd.)
'!kght ko dark brown stained (sapeppel?) material that appears cometimes as clayey, or nambos, or even sait sized cale particles.
\*\*sampled from pale brown lamination in sapropel.

NANNO GOZE

10 YR 6/6 brownish yellow
no moctiling
slightly silty lutite with scattered forams
end of core

Page / of /

VISUAL CORE DESCRIPTION

# SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

													3 4	Total Length 124 Core condition etc Physiographic locat	Total Length 124 cm. Lat. 33° 158' w 1 Core condition exactleed. Date Physiographic location MEDITERRANEAN River.	N Long No. 2009 & Depth 2372 CELT M Date Described 3 Nov 75 by 11 Fresher Place, Ensteen Mee.	E Depth 2372 car. No 75 by H. Foremer. Sp.
Ship: CHN			3	Core No.	9.		PC (contd.)	·						Lithologic	Detailed	Detailed Description	
Expedition 119	1		S	tation	Station No.	22		1				Pleisteene	See 1	1			
Leg No.	-		Ţ	otal C	Total Core Length	ength		697		CB				1	CALC OOZE		
			4	STIMA	TED A	BUNDA	ESTIMATED ABUNDANCES (%)	24					111	+ +	10 YR 6/4 light yellowish brown 0-5 medium size, faint, dark br	10 YR 6/4 light yellowish brown 0-5 medium size, faint, dark brown mottles	mofiles
	Inorg	Inorganic Material	ateria	1-1			Biogenous Material	ous Me	teria	_		-	111	1 1 1	slightly silty lu	slightly silty lutite with scattered forams and	d forams and
	5.	1t & S	pand			Ca	Calcareous	Sn		Siliceous	eons		111	1	pteropods		
SEOIMENT TYPE	Istinted saitere	Micronodules Zeolites	JinsoloV	sp.e4s C3ay	2meno7	2[izzo]onn5N	Pteropods	Discoasters	0fhers	Diatoms Redioleria	Spondes	Y Heistone I	- 3 milingund	1941 and deare	14-19 CALC OOZE 5 Y 3/2 dark olive gray abundant, small, pale b slightly silty lutte w common sapropel zone G	CALC OOZE  S Y 3/2 dark olive gray abundant, small, pale brown mottling slightly silty lutite with forams and pteropods common sapropel zone	s nd pteropods
487 calc ooze	tr		Ħ	35	2	53	9	1	7			T T	1111		19-30 CALC 00ZE		
580 calc ooze	tr	1		04	0	43	ţ		3				IIII		5 Y 6/1 light gray (grades from da abundant, small, dark gray mottles	5 Y 6/1 light gray (grades from dark to light) abundant, small, dark gray mottles	k to light)
696 nanno ooze	E E	tr		18	4	16	Ħ		2	-		-,	8 €		silty lutite with common forams G	common forans	
		-	-	-							-		HIL		30-124 CALC OOZE 10 YR 6/4 light ye	.24 CALC OOZE 10 YR 6/4 light yellow-brown appears as subdued	s as subdued
		-	-	-								1	ulu		bands (2 cm) wit	bands (2 cm) with irregular contacts small mottles are scattered from 40-60 and 72-75	cts -60 and 72-75 cm
		-	-	-	-					-			11		silty lutite with a few pteropods 79-80 cm slightly darker brown, c	silty lutite with a few pteropods 79-80 cm slightly darker brown, crumbly lutite	mbly lutite
		-	-	+	-					-			1111		(highly calc clay) 104-109 light gray (	(highly calc clay) 104-109 light gray (5 Y 7/2), thin, convoluted layer	convoluted layer
		+	-	-	-	-			-		+	1	[""		end of core		
		-	-	+	-					+			1111				
		-	-	-		-			-		-		111				
		-		-	-								110.5				
						-							1111				
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-	-	-											1				

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 6 PG

CHN

Ship:

Leg No.

LEVEL

### VISUAL CORE DESCRIPTION

Page / of /

Total Length 723 cm. Lat 32° 203' // Long 26° 56.7' E Depth 3196 cm B.

Core condition (124/md. Date Described 30° 50.7' E Depth 3196 cm B.

Debusioned. Core condition stalling Date Described 18 Set 20 by H. Furner Physiographic location. H. Keaperus, Bapin, Enstern Med. Sen. Detailed Description Lithologic

very uniform, no indication of flow in, although it is suspected; at 14 cm - 5 mm of slity lutite, 2.5 Y 6/4 light yellow brown; 128-131 cm 5 Y 5/1 gray band end of core 2.5 Y 6/4 light yellow brown no mottling soft silty lutite with few forams 10-10.5
UNFOSS CLAY
2.5 Y 3/2 very dark gray brown
no mottling
soft lutite 12-14
UNFOSS CLAY
2.5 Y 3/2 very dark gray brown no mottling soft lutite CALC OOZE 2.5 Y 6/2 light brown-gray no mottling fine silt 10.5-12
CALC OOZE
5 Y 6/1 light gray/gray
no mottling
soft lutte
sharp, irregular CALC 002E 2.5 Y 5/2 grayish brown no mottling lutite sharp, irregular NANNO OOZE 14-723 9-10 6-0 144 1 Log Neistorence 1 7.1 tr пикине Biogenous Material
Calcareous tr Binelotbea E Smoterd 15 Ofpers 124 ţ Discoasters ESTIMATED ABUNDANCES (%) ţ Ħ Ħ 4 spodouato Total Core Length \_ 20 20 sffssofonnsN 0.5 Station No. 22 9 68 mostly very fine glass needles 1 -Forams 4 2 7 \*stiff lutite layer (1 cm) 25 35 36 99 Clay 45 Inorganic Material Silt & Sand Volcanic 1. Detrital grains fine silt 8 fine silt 5 H tr calc coze nanno ooze calc ooze highly calc clay Expedition 119 SEDIMENT calc ooze calc ooze TYPE

122

16

09 6L\*

54

booksom of core 723

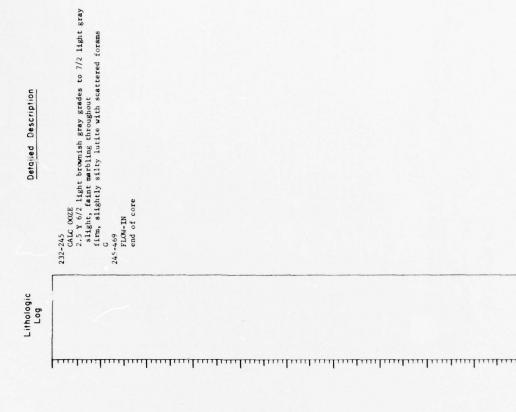
Pierstrene

1

Page 1 of 3

Cruise 119 Leg 2 Sta 27 Core No BPC.  19 cm. Lat 31,498'N Long. 27.43.9'E Depth 2738 m.cer.  Excellent Date Described Linding by Borden.  Cotton HERDOTY, 84KIN E. MEDITER ANTENNEY SEN.	Detailed		- 0-18 - CALC OOZE	10 YR 6/4 light yellowish brown and 7/4 very pale brown intermetiting and marbifing of the colour above along	very dark gray and dark grayish brown inclusions (disturbed laminae) in the zone 8-14 cm	unconsolidated lutite with varying foram content - at most abundant, but generally few entire section (in short line) is somewhat disturbed and disoriented. Stratigraphic features are preserved but horizons are inclined sharply or broken. I cm wide dark laminations are found in the zone 8-14 cm. NOTE: After comparison with pilot core it appears that the first 12 cm of the piston core represent the	top 30 cm of the sediment recovered by the pilot core in a compacted condition. It appears that the piston use immobile during initial memore of measurements	and recovered (and compared only as much sediment as would it in the catcher cutter as exemply (annoughly to the catcher cutter ascembly (annoughly to the catcher cutter ascembly cannot as	12 cm + water). The rest of the core style to the transfer was recovered after the biston hown to move - and hy	the pilor's record it would seem that at least 50 cm have been missed or "blown by".	S, irregular	CALC OOZE 2.5 Y 7/2 Hight gray	no mottling apparent stiff, somewhat silty lutite with small lithified lumps	included; also a wedge of foram sand appears 22-24 cm, stratification questionable	S, horizontal	CALC OOZE 5 Y 7/2 11ght gray and 6/1 gray	marbled, somewhat disturbed combination of the colors above with a few olive gray inclusions in the cone	30-32 cm firm, slightly silty lutite intermittently contacts	sharply and irregularly with beds of silty foram sand	40-53 40-53 10 VB 6// 19-h	to in 0/4 taght yellowish brown grades to 7/4 very pale	firm, smooth lutite with scattered forams G		
Ship CHAIN Cruise Total Length 469 Core condition Excel	Lithologic	10+10	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	104	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1	4 4 4 4	10	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 + 1 + 1 + 1	# 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	/ /// ''''	FAON	2			, mi		<i></i>	· / / / / / / / / / / / / / / / / / / /	ent of our.	THE PARTY OF THE PROPERTY OF THE PARTY OF TH
		Responence				8			200		Phytoche			300					900				415	
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					sn.	səbuods	5																	
			_		Siliceous	Binefolbes														1	1		-	
			E		17	2 mode to	1																	
			1		S															_				
					faterial	Shers	30	4	04	Ħ	_	n	N	3	2	2	2							
		1	723	(%	Materi		-	tr 4	tr 40	11	tr 7	tr 3	cr 5	G 3	tr 5	tr 2	tr 2				+			
CORES	1	1	723	SES (%)	Materi	shehto	נ	-	-	-	-	+	-	-		-	-				+			
ENT CORES	7 PC	25		NDANCES (%)	Biggenous Material	Statseossic	2 tr	ä	Ħ	-	Ħ	tr	T.	tr	tr	t	ä				+			
SEDIMENT CORES	7 PC	0. 25		ABUNDANCES (%)	Materi	spoqonate enasteossic enadic	2 tr	1 11	tr tr	tr	tr, tr	tr tr	tr tr	tr tr	tr tr	1	1 (1							
.1. SEDIMENT CORES	1	1			Materi	slissotomelossils Peropods Pratseossic Pratse	40 2 tr	86 1 tr	8 tr tr	tr	45 tr tr	35 tr tr	tr 45 tr tr	tr tr	35 tr cr	59 1 tr	30 1 tr							
M.H.O.I. SEDIMENT CORES	1	1		ESTIMATED ABUNDANCES (%)	Biogenous Materi	Shards Clay Forams Mannofossils Otscoasters Stroasters	26 2 40 2 tr	. 2 86 1 tr	tr 8 tr tr	90 tr tr	45 tr 45 tr tr	tr 35 tr tr	45 tr tr	36 tr tr	tr 35 tr cr	tr 59 1 tr	tr 30 1 tr							
45 - W.H.O.I. SEDIMENT CORES	Core No. 7 PC	Station No. 25	Total Core Length 723		Biogenous Materi	Shards  Clay  Forams  Aannofossils  Steopods  Steopods  Steopoters	tr 26 2 40 2 tr	. 2 86 1 tr	tr 8 tr tr	tr tr	tr 45 tr tr	tr 35 tr tr	tr 45 tr tr	36 tr tr	tr 35 tr cr	tr 59 1 tr	tr 30 1 tr							
PTIONS - W.H.O.I. SEDIMENT CORES	1	1			Biogenous Materi	Volcante Shards Shards Clay Forams Vannofossils Petropods Otscoasters Otscoasters	tr 26 2 40 2 tr	6 2 86 1 tr	tr 8 tr tr	90 tr tr	45 tr 45 tr tr	tr 35 tr tr	tr 45 tr tr	36 tr tr	tr 35 tr cr	tr 59 1 tr	tr 30 1 tr							
ESCRIPTIONS - W.H.O.I. SEDIMENT CORES	1	1			Biogenous Materi	Shards  Clay  Forams  Aannofossils  Steopods  Steopods  Steopoters	tr 26 2 40 2 tr	. 2 86 1 tr	tr 8 tr tr	90 tr tr	45 tr 45 tr tr	tr 35 tr tr	tr 45 tr tr	36 tr tr	tr 35 tr cr	tr 59 1 tr	tr 30 1 tr							
IDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES	1	1			Materi	Micronodules Zeolites Volcanic Shards Clay Forams Vannofossils Peropods Otscoasters	tr tr 26 2 40 2 tr	6 2 86 1 tr	tr 8 tr tr	90 tr tr	45 tr 45 tr tr	tr 35 tr tr	tr 45 tr tr	36 tr tr	tr 35 tr cr	tr 59 1 tr	tr 30 1 tr							
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES	1	1			Biogenous Materi	grains Micronodules Zeolites Volcantc Shards Clay Forams Forams Annotossils Steropods Otscoasters	tr 26 2 40 2 tr	tr 6 2 86 1 tr	50 tr 8 tr tr	tr 90 tr	tr 45 tr 45 tr	60 cr 35 cr cr	47 tr 45 tr cr	60 36 tr tr	57 tr 35 tr tr	37 tr <b>59</b> 1 tr	66 tr 30 1 tr							

<del>արակումասիակավառիակակակակակավառիակավառիակա</del>



Page 3 of 3

Core No.

27

Leg 2 Sta.

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

8 PC

Core No.

119 CHN

Expedition

Ship:

Leg No.

Page 1 of 1

### VISUAL CORE DESCRIPTION

No.	
Core	
Sta. 27	*******
Sto.	
Leg 2 S	
Leg	
611	•
Cruise	
CHAIN	
d	

Total Length 82 cm. Lat 31 49.8 N Long 21: 45.9 Depth 2135 miner. Core condition Excellent Date Described II NIN 15 by Sander. Core condition Excellent Date Described II NN 15 by STATES Physiographic location Hercosty's EASIN, EASING MEDITERRANGAN SEA 886 Lithologic

Detailed Description

10 YR 4/3 brown grades to 5/6 yellowish brown some fine calcarreous flecks and laminac-like features in the broad grading bends of the colors above slick lutite with a few scattered forams CALC GOZE WITH PYRITE
10 YR 4/1 dark gray
numerous white calc flecks and mottle-like inclusions
silty lutite(sapropel) with scattered forams and pteropods varying hues of 10 YR 6/4 light yellowish brown and 7/4 very pale brown no moortling but broad laminations of the hues above unconsolidated slightly silty lutite with a few silty laminations 12-18 cm S, horizontal CALC OOZE CALC OOZE G 20-27 110 1 1 end of core 1 1 1 1 1 1 1 +0 1 1 1 1 Persucae Log 1 1 B 15 Messpeene Spondes Biggenous Material
Calcareous BinsloibeA 54440 697 Discoasters ESTIMATED ABUNDANCES (%) spodouald Total Core Length 20 sfissolonneN Station No. Forams Clay Inorganic Material Silt & Sand Volcanic

10 YR 6/1 gray grades to 6/3 pale brown a few faint light brownish gray mottles scattered throughout firmer slightly slity lutite with scattered forams end of core CALC OOZE

ատրարարարարարարարարարար

10

12

18

09 70 9

4 93

18 39

4

ooze

calc

20

18

22 22

9200

calc

150 230 270 595

ooze calc coze

calc

22

30

33 16

one remarkably well-preserved pteropod test 33-34 cm; also 2 cm wide light gray band breaks sapropel sharply

100

12 56 2 12

75

4

T.

tr

nanno ooze

85

calc ooze

39

calc ooze

63

14

10

T tr

90 30

10

15

1

ooze

calc

calc ooze

20 28

#

ooze

calc

2eolites Micronodules

Detrital

SEDIMENT

TYPE

LEVEL

VISUAL CORE DESCRIPTION

Ship CHAIN Cruise 119 Leg IL Sta 22 Core No 9PC.  Total Length 711 cm. Lat 31 19 0'N Long 28 11.0'E. Depth 891 m. Lat.  Core condition Excellent Date Described 22NNV 75 by 6 STACK.  Physiographic location CANTINENTAL SHELE WEST OF ALEXANDRIA 5 EMTERN MEDITERRANEAN.	Detailed Description	O-15 CALC 002E TO YR 6/4 light yellowish brown and 2.5 Y 4/2 dark gravish brown
Ship CHAIN Cruise Total Length 711 c Core condition EXCEL Physiographic location	Picyking Lithologic	25
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIVENT CORES	Core No. 8 PG Station No. 27	Total Core Length 82 cm ESTIMATED ABUNDANCES (*)
SMEAR SLIDE DESCRIPTI	Ship: CHN Expedition 119	Leg No.

	0-15 GALC OOZE	10 YR 6/4 light yellowish brown and 2.5 Y 4/2 dark grayish brown	alternate zones of the colors above: grayish brown mainline in the brown hande very small light oray	and white calc flecks in the dark grayish brown sapropel zones  NOTE: After comparison with pilot core it appears	that the small portion of this piston core that is not flow-in may be disturbed by extreme compaction: stratification questionable.  Sirregular.  GALC OOZE	10 YR 6/2 light brownish gray, grades to 7/4 very pale brown	another dark grayish brown sapropel irregularity, spans liner at 28 cm slightly inclined	slightly silty lutite with scattered forams S flow-in	32-711 FLOW-IN											1			
Pleybung 1	7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Pluckette		7	1/1	- 3071	1	Z00Z			1		38		1	\rangle \rangl	/	1	1 000	BATTOM OF LORE: 711 COM	1111	т.	
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				500	səbuods		Ħ			-	-					-	-	-	-	+	-	+	+
	E C		211,000,10		Rediplaria	-	-			-		-		-	-	-	+	+	+	+	+	+	+
			rial	0	li atoms	-+	-			-	-			-	-	-	+	-	+	+	+	+	+
	82		Biogenous Material	-	0thers	00	=	2	80	9	00	-			-	-	+	+	+	+	+	+	+
1		3	Snous	sons	Discoasters		-				-			_	-	-	-	-	+	+	+	+	+
		NCES	Віод	carcareous	Pteropods	#	Э	9	9	2	Ħ	-		-	-	-	+	+	+	+	+	+	+
27	Total Core Length	ESTIMATED ABUNDANCES (%)	-	3 5	lizzolonnsN	20	35	40	07	45	42	-		_	-	-	-	-	+	+	+	+	-
No.	a C	ED A			Forams	1	4	00	7	9	9	-		_	-	-	-	-	+	+	+	+	+
Station Nc.	هـ در	TIMA		_	Clay	33	43	39	24	40	45								1	1	-	1	
Sta	Tot	ES	erial	5	Volcanic Shard:	Ħ																	
			Inorganic Material	290	Zeolites																		
			gani	1	Mi cronodul es	H	1	3	2	t	Ħ						T						
			Inor	5	Detrital grain										T		T	T	T	1	1	T	
1	,				( , , , , , , , ,	2	3	2	1	-	2				-		1		-	-	-		
Expedition 119	9.			SEDIMENT	ТУРЕ	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze												
Exped	Leg No.				LEVEL	1 cm	10 сш	25 cm	35 ст	38 cm	81 сп												
							-				-				1		-1	-	-	-	-	-	- 1

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

#### VISUAL CORE DESCRIPTION

Page 1 of

801 1000 Date Described 23NOV 15 by 1 Brinda 299 Physiographic location (ANTINENTIAL SHELF WEST OF ALEXANDALA; EASTERN MEDITERRAMERAL 119 Leg TL Sta 28 Core No. Lot 31º 19.0'M Long 28' 11.0'E Depth 611 EXIEUENT. Cruise 69 Ship CHAIN Core condition Total Length

Detailed Description

CALC COZE
10 YR 5/2 grayish brown
common light yellowish-brown mottling throughout
firmer, a bit siltier lutite with scattered forams
6, mottled
15-54 CALC 002E

10 YR 6/4 light yellowish brown
slight very faint gray marbiing and mottling
slightly silty lutite with fairly abundant forams
5, mottled
10-19 Mestrone Log 111

15 - BOTTOM OF LINE: 19 MILE 101

CALC GOZE

10 WR 7/3 very pale brown
10 WR 7/3 very pale brown
inregular faint light gray and grayish brown mottling
silty lutite with scattered forams and one interesting
bloclastic cemented worm tube at 35 cm
inclined sapropel 2 cm wide 37-39 cm, 2.5 Y 4/2 dark
grayish brown
6, mottled CALC OOZE

10 YR 5/2 grayish brown slight, light yellowish brown mottling throughout silty, tacky lutite with scattered forams

CALC GOZE

2.5 Y 4/2 dark grayish brown innumerable tiny, very pale brown flecks and specks very slightly silty lutite (sapropel-like layer) end of core

1 1 sabuods Biogenous Material
Calcareous Siliceous Radiolaria Smoterd 10 1 15 10 Others SUBTSENDS IN 3 3 7 pteropods 35 20 30 30 35 sfissofonnsN S 4 80 12 15 Forams CJSA 04 21 84 42 Inorganic Material Silt & Sand Volcanic Zeolites Mi cronodul es 7 4 Detrital 5 -3 7 SEDIMENT 9200 calc ooze calc ooze calc ooze calc ooze TYPE calc 710 cm LEVEL 30 сш 16 cm 12 cm I cm

Lithologic

CM

711

Total Core Length

Station No. 28

Expedition 119

Leg No.

Ship: CHAIN

9 PC

Core No.

ESTIMATED ABUNDANCES (%)

y g

707

CALC 002E

OY R 7/3 very pale brown

a few rusty fleeks and pockets scattered throughout compact, slightly slity lutite

Ship CHANA Cruise II9 Leg 2. Sto. 34c Core No. 2.6  Total Length 86c cm. Lot 31 20 24 Long 22 fife Depth 4c can condition Excellent 1 20 24 Long 22 fife Depth 4c can condition Excellent 1 20 24 Long 22 fife Depth 4c can condition Excellent 1 20 24 Long 22 fife Depth 4c can condition Excellent 1 20 24 Long 22 fife Depth 4c can condition Condition Aby Quer Boy 5 9 Art 1 20 24 Car 1 20 25 7 3/2 very dark graytah brown mosts, thrm silty lutter with depth - several mit becomes slightly where with depth - several mit becomes slightly where with depth - several mit becomes slightly where with depth - several mit becomes slightly where with depth - several mit becomes slightly where with depth - several mit becomes slightly where with depth conditions in the series of section of call and section of call
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# 510 VISUAL CORE DESCRIPTION

Ship CMAIN Cruise 119	Total Length 83 cm. Lat	
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES		

VISUAL CORE DESCRIPTION	Cruise 119 Leg 2 Sta 55 Core No 3 ac 83 cm. Lat 31 32.4 M Long 30 15.5 E Depth 12 carr m. essellast Oction Commercial Sheef NAE of Alexandra Energ		Detailed Description		0-83 SLIGHTLY CALC CLAY WITH DETRITUS	2.5 Y 3/2 very dark gray brown laminated with 2.5 Y	4/2 dark gray prown	smooth lutite	laminae vary from .5-3.0 cm with sharp contacts end of core																	
VISUAL	Ship CHAIN Cruise 719.  Total Length 8.3 cm. Lat 37.  Core condition 4.4.4.4.4.  Physiographic location Contract of	Lithologic		1 1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1		1 1 13	11	1 1 1	Rushene:	(NUMBERIOS) = 83: and of core		, ,		11	 •	71.	 .,,,	Į.	 717	 ч-	 	1	.,,,,
	SEDIMENT CORES	2 90	No. 36	1	(*)	Discount Material	blogenous material	Calcareous Stilleous		sboods servers servers	Fornormore formore prevopensore formor		+	tr 3 1	3	٠	7									
	SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDI	Core No.	Station No.	Total Co	NI INC.	Tring House	Inorganic material	STIL & SAND	se	sez sez sez sez sez	Detrit Micron Zeolit Volcan		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20 5 3 68	50 5 3 39	20										
	SMEAR SLI	Ship: CHN	Expedition 119	No S		1		1	SEDIMENT	LEVEL TYPE		slightly silic		58 clay with det.	slightly calc	slightly calc										

VISUAL CORE DESCRIPTION Page 1 of 1	Ship 44AIN Cruise 119 Leg II Sta. 61 Core No. 10fC. Total Length 617 cm. Lat 31 40.8'N Long. 30' 01.4' E Depth 431mi-carr. Core condition Extex.6MI. Date Described 24MIJS by 60.4AA. Physiographic location ALEXANDRIA CANYIN IN RIFECTH FAIN, EASIERN MEDIT ERRAMEAN.	Physical Description	67-0		Phythen So 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	tions and beds; many are inclined and irregular, some are incomplete (do not span entire liner) slick lutite interbeds with slightly to vry silty lutite throughout NOTE: All the features in this unit appear quite compacted and somewhat distorted. After comparison with pilot core, this whole 49 cm surface unit may represent a squeezed and shortened sample of the first meter of the sediment.	49-65, ifregular	10 Variation of the staying brown over a contraction of the staying light browning of the staying light browning of the staying over the staying of the stay	firm, slightly lutite entires concave muand	60-615 CALC OOZE	FLOM-IN end of core	1	FLOW	N. C. C. C. C. C. C. C. C. C. C. C. C. C.		1		125 - BOTTOM OF CON E-15cm		
								7										1	T	1
			E C		Siliceous	sinefolbes spenge														+
					S Materi	Statemes Of atoms Radiolaria Sponges	2 tr tr	2	2											
	NE.S		83. cm	(%) S.	S Materi	Statemes Of atoms Radiolaria Sponges	tr 2 tr tr	2	2 i											
	INT CORES	55	83	IDANCES (%)	Biogenous Material	Statemes Of atoms Radiolaria Sponges	tr 2 tr tr	2												
			83	ABUNDANCES (%)	Biogenous Material	steropods  21 Scoasters  21 Athers  22 Athers  23 Athers  24 Athers  25 Athers  26 Athers  26 Athers  27 Athers  28 Athers  28 Athers  29 Athers  20 Ather	tr 2 tr tr	tr 2	tr 2 i		93									
			83	MATED ABUNDANCES (%)	Biogenous Material	Vannofossils  Steropods  Otscoasters  Others  Others  Radiolaria	tr tr 2 tr tr	tr tr 2	tt		эшіпре									
п		9		ESTIMATED ABUNDANCES (%)	Biogenous Materia Calcareous	Enoyaysis signored strains of the sound strains of	67 tr tr 2 tr tr	tr tr 2			red laminae									
511			83	ESTIMATED ABUNDANCES (%)	Biogenous Materia Calcareous	Enoyaysis signored strains of the sound strains of	1 67 tr tr tr tr	70 tr tr 2	67 tr		colored laminae									
511			83	ESTIMATED ABUNDANCES (%)	Biogenous Materia Calcareous	Enoyaysis signored strains of the sound strains of	1 67 tr tr 2 tr tr	70 tr tr 2	67 tr		ghter colored laminae									
511			83	ESTIMATED ABUNDANCES (%)	Biogenous Material	Micronodules  toolites  Volcanic  Shards  Colay  Forams  Mannofossils  Peropods  Otscoasters  Others  Madiolaria  Saddoparia	1 67 tr tr 2 tr tr	70 tr tr 2	0 1 67 tr		rom lighter colored laminae									
511	SEDIMENT	Ition 119 Station No.	83	ESTIMATED ABUNDANCES (%)	Biogenous Materia Calcareous	grains & gra	20 10 1 67 tr	17 17 17 tr 2	1 67 tr		*from lighter colored laminae									

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 1

Ship CHAIN Cruise 119 Leg TL Sto. 61 Core No. 10 FGTotal Length 120 cm. Lat. 31-408 Nd. Long. 30' 01.41E. Depth 451 m. Mr.
Core condition Excertent Date Described 25 NV St. by LEGGLA.
Physiographic location ALEXANDRIA AMININ IN ROSETTH FAM. EASTERN HENTERRANEW.

Lithologic

Detailed Description Pleisteene

HIGHLY CALC CLAY GRADES TO CALC CLAY

10 XR 4/2 dark grayish brown faint, irregular and poorly defined light brownish-gray mottling and marbling moist, unconsolidated slick lutite 5, mottled

Biogenous Material Siliceous

Inorganic Material Silt & Sand

ESTIMATED ABUNDANCES (%)

E

615

Total Core Length \_\_ Station No. 61

10 PC

Core No.

CHN

Ship:

Expedition 119

Leg No.

BHHRE

Rediolaria

Discoasters

**elissotonns**M

Forams

CJSA Volcanic

Sealfloes

Micronodules

grains Detrital

TYPE

LEVEL

SEDIMENT

Diatoms

Officers

HIGHLY CALC CLAY WITH LAMINATIONS OF HIGHLY CALC CLAY/DETRITUS
10 YR 4/2 dark grayfish brown and 5/2 grayfish brown and 6/2 11ght brownish gray repeated sequences of beds of the colors above with

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calc clay highly calc clay

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calc ooze

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09 35

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tr tt

99 07 64

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highly
calc clay
highly calc

32

19

common to extensive inter-mottling throughout moist, slightly slity lutter with occasional zones of very slity material; also scattered Mn-rich flecks 35-60 cm and scattered, thin, irregular slity lenses, 102-94 cm, and scattered, thin, irregular slity lenses, 102-end of core

Pleus tocome 4

125 - BOTTOM OF CORE : 121-

արարարարարարարարարար

Page 1 of 2

516 VISUAL CORE DESCRIPTION

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

17	Physiographic location <u>NoteTM Pru Linie (ane.)</u> N.W. & ALEKANDŘÍR EGYPT <u>, E. Medifersandru</u> Lithologic Location		CALC OOZE 10 YR 6/4 light yellowish brown	extensive, dark olive gray intermarbling	moist, unconsolidated lutite Note: this unit appears disturbed and unstratified; also,	on comparison with pilot core, it seems likely that the piston core missed ("blew by") the first 35 or 40 cm of sediment and then compacted the next 30 or 40 cm in the top 15 cm of its recovery  S, irregular  GALC OOZE  S Y 3/2 dark olive gray	numerous, faint and somewhat irregular olive gray laminations	motst, silck intite with a tew line wedges and lenses of silt	43-350	DETRITUS/PYRITE  5.7.3 -1.1.	of 1 )/2 dark office gray innurable and repeated sequences of .5 mm to 1 cm innumarable and repeated sequences of .5 mm to 1 cm innurable sequences of .5 mm to 1 cm	ly carbonate in composition, but silt-sized detrital languages are also common.	tures have been recovered and preserved	firm, smooth lutite throughout, with occasional silty laminations	a few of the carbonate laminae found throughout are somewhat lithified and brittle	350-630	SLIGHTLY CALC CLAY, GRADES TO CALC CLAY WITH LAMINATIONS AND BANDS OF CALC DOZE	5 Y 3/2 dark olive gray	laminations continue, but they are considerably fainter and in general not so well-defined: there are a num-	ber of broad bands of olive brown lutite (373-375.5 cm)	followed by similar sequences of light and dark gray	laminations: a curious change in inclination of the		9			
Ship CHAIN Cr Total Length 925 Core condition	Physiographic local		1 1 1 1 1 1 1 1	11	111				11	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		 	         		1 1 1	111111111111111111111111111111111111111	1 1	1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1	1 1 1	111111111111111111111111111111111111111	111111111111111111111111111111111111111	1111	1		1
		Personene				<u>e</u>			3					3	•					•	<u>,</u>						005
												2															
			_			пыкт				-	-	-	-	T	-	-	-	-	- 1	-	_	1	-	1	- 1	-	
			F	T	snc	Sponges	נ	ם	ב		Ħ	7			I	I	I						I				
			<b>E</b>		iliceous	Sponges		Ħ	ä								1										
			<b>E</b> 5	rial	Siliceous	smoteid airafoiba8 apnoqes				0	Į,	Į,															
				Material	200	Others Diatoms Radiolaria Sponges	ω	5 tr	8	10																	
FE S	1		50	v	2	Discoasters Others Sponges Straffotbaria Sponges	00			10	Į,	Į,															
IT CORES	10 PG	1	50	v	2	Discoasters Others Distoms Radiolaria	88	2	8		6 tr	5 tr															
DIMENT CORES	10 PG	19	gth120	v	200	Nannofossils Pteropods Ofscoasters Others Diatoms Radfolaria	15 tr 8	5 5	15 8	7	12 6 tr	10 5 tr															
I. SEDIMENT CORES		19	gth120	v	2	Forams Namofossils Pteropods Ofscoasters Others Diatoms Radiolaria	3 15 tr 8	5	4 I5 8	2 7	2 12 6 tr	tr 10 5 tr															
.H.O.I. SEDIMENT CORES		19	gth120	Riogenous Riogenous	Calcareous	Forams Namnofossils Nemofossils Discoasters Others Distoms Radiolaria	64 3 15 tr 8	5 5	15 8	7	12 6 tr	77 tr 10 5 tr															
S - W.H.O.I. SEDIMENT CORES	Core No. 10 PG		50	Riogenous Riogenous	Calcareous	Volcanic Shards Forams Nannofossils Discoasters Others Distoms	tr 64 3 15 tr 8	5	4 I5 8	2 7	2 12 6 tr	tr 10 5 tr															
PTIONS - W.H.O.I. SEDIMENT CORES		19	gth120	Riogenous Riogenous	Calcareous	Zeolites Volcanic Shards Clay Forams Namofossils Discoasters Others Radiolaria	tr 64 3 15 tr 8	4 76 tr 5 5	2 6 4 15 8	4 47 2 7	4 71 2 12 6 tr	tr 77 tr 10 5 tr															
ESCRIPTIONS - W.H.O.I. SEDIMENT CORES		19	gth120	Riogenous Riogenous	Calcareous	Volcanic Shards Forams Nannofossils Discoasters Others Distoms	tr 64 3 15 tr 8	76 tr 5 5	6 4 15 8	47 2 7	71 2 12 6 tr	77 tr 10 5 tr															
LIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES		19	gth120	Riogenous Riogenous	2	Micronodules Zeolites Volcanic Shards Clay Rorams Mannofossils Precopods Others Others	2 tr 64 3 15 tr 8	4 76 tr 5 5	2 6 4 15 8	30 tr 4 47 2 7	5 tr 4 71 2 12 6 tr	tr 77 tr 10 5 tr															
SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES		for 119 Station No. 61	gth120	Riogenous Riogenous	Calcareous	Grondes Micronodules Zeolites Zeolites Clay Mannofossils Forams Discoasters Others	2 tr 64 3 15 tr 8	2 4 76 tr 5 5	5 tr 2 6 4 15 8	tr 4 47 2 7	5 tr 4 71 2 12 6 tr	2 tr 77 tr 10 5 tr															

VISUAL CORE DESCRIPTION

Leg II Sig. 62 Core No. 11 PC Poge 2 of 2 Ship CHAIN Cruise 119

Detailed Description 630-910 Lithologic Lcg

200

CALC CLAY WITH LAMINATIONS OF CALC OOZE AND DETRITUS/ PYRITE 5 Y 3/2 dark olive gray light gray and olive gray laminations continue, with the addition of two dark grayish Broom, 1-1.5 cm, beds of very stiff, lithifted lutite; also, the fine, silty laminations take on a rusty hue from here to bottom of

firmer, more compact, smooth lutite, with occasional fine beds of silt void 84-847, plus a few small splits in the zone 823-910 cm

111

3

1

910-925 FLOW-IN end of core 1 1 1 1

11.

11

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

CH 925 11 PC Total Core Length Station No. 62 Core No. CHN 119 Expedition

Leg No.

Ship:

					EST	ESTIMATED ABUNDANCES (%)	D ABI	JNDAN	CES (					
		Ino	Inorganic	c Mat	Material			8	Biogenous		Material	9		
			Silt	& Sand	P			Cal	Calcareous	Sno		Sil	Siliceous	S
LEVEL	SEDIMENT TYPE	Detrital snisyp	Mi cronodul es	Zeolites	Volcanic sbrads	Clay	Forams	2 [ i 2 2 0 1 on n 5 M	Pteropods	Discoasters	Others	2 mots id	Radiolaria	Spondes
-	calc ooze	2	Ţ,			25	2	65	3		3			
76	calc ooze	2	ţ			37					09			
107	detritus/	87				5					2			
200	slightly calc clay	9				80	ä	4			9			
235	calc ooze	נ	ţ			58	t	2			35			
300	slightly calc clay	3	ä			87	1	2			m			
397	calc ooze	2				33	11	2			55			
489	calc ooze	2				09	T.	-			35			
495	calc clay	7	tr			82		Ħ			œ			
900	calc clay	10	Ħ			77	11	2			9	2		11
683	calc ooze	-				39	Ħ				57			
700	detritus/ pyrite	50				4					4			
702	calc clay	0				78		2			5	-		4
800	calc clay	2				84		2			4	-		=
006	cale clay	4				81		9			2	-		-

13.5.5.5.5.5.5

Pesstuene.

end of one green

800

45

9 × 8 H H M

Ship CHAIN Cruise 119 Leg II Sto. 622 Core No. 1186-Total Length 84 cm. Lat 31' 52.92'N Long 29" 580'E Depth 1366 Privari Core condition EXCELLENT Date Described 4pm 75 by 18" entries -Ba-Physiographic location METTA MININEELINE) NW of ALEXANDRA CENTLE MEDITEREAM EAN.

Detailed Description 0-10 Lithologic 607

CALC GOZE

10 YR 4/3 dark brown

10 YR 4/3 dark brown

homogeneous throughout

moist, unconsolidated, slightly slity lutite

upper 5 cm a bit washed and upset: large pteropod intact at 2 cm

S, irregular 

CALC OOZE

10 TR 6/3 pale brown extensive, fine, dark brown mottling and burrowing throughout a bit firmer, slightly silty lutite with a few forams 5, mottled

CALC DOZE

10 YR 6/4 iight yellowish brown, grades to 5/2 grayish brown

end of the How

Personene 3

000

tling and burrowing throughout most moist, very slightly sitty lutite with scattered forans and perceptions after bed of small precepted fragments is found 16-17 cm 5, inclined 10° extensive, very pale brown and light grayish brown mot-

GALC OOZE GRADES TO CALC CLAY
5 Y 3/2 dark olive gray
innumerable, tiny, very pale brown mottles, burrows,
and flecks: also one very large, irregular, light
gray mottle spans 49-53 cm
moist, slightly silty lutite
and for fore laminae appear 79-84 cm
end of core

520

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

E 84 11 PG Total Core Length \_\_ Station No. 62 Core No. CHN Expedition 119 Leg No. Ship:

			мини				10	
		SI	Spondes	-				
		Siliceous	Radiolaria					
	(e)	511	Diatoms	ä				
	Material		279450	7	9	2	4	
( e			Discoasters					
CES (	Biogenous	Calcareous	Pteropods	4	6	3	ä	
MDAN	80	Cal	2 f i 2 2 0 1 o n n 5 M	35	09	50	10	
ESTIMATED ABUNDANCES (%)			Forams	2	5	2	Ħ	
IMAT			CJSY	77	24	42	70	
	Material	P	Volcanic shards	1	Ħ			
	c Mat	& Sand	Zeolites					
	rgani	Silt &	Micronodules	tr			t,	
	Ino		Detrital Snisng	9	2	1	9	
			SEDIMENT	calc ooze	calc ooze	calc ooze	calc clay	
			LEVEL	1	20	50	83	

Ship CHAIN Cruise 119 Leg 2 Sta. 64 Core No 12 PC.

Total Length 414 cm. Lat 32° 32.8" NLong. 29° 13.5 EDepth 2289 cam.

Core condition 2scalland Date Described 202 15 by El Farmer

Physiographic location Rosette Far. (Nuc (core) Nw. of Algandra, Egypt Detailed Description Lithologic

Log

Penoune -

CALC 002E 10 YR 6/4, light yellow brown no apparent mottling slightly silty lutite with few forams S CALC OOZE 9-0 6-9 11011 7 1 11 + 1 + 1 +

10 YR 4/4, dark yellow brown small scattered mottling, 8-9 cm slightly silty lutite with few forems CALC COZE

SLIGHTLY CALC CLAY

5 Y 3/2, dark olive gray
few small mottlings 20-21; 2 larger irregular sand
clasts 40-49 cm bioclastic fragments common
lutie, 24-27 cm bioclastic fragments common
silt/fine sand laminations from 30-38 cm (~2-4 mm) 2.5 Y 3/2, very dark gray brown very abundant small mottles throughout slightly slity lutite thin (3 mm) sand layer at bottom

SLT

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SLT

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1 175

5 Y 2.5/2 black generally few forams but scattered small patches with abundant forams; Lutte with coarse silt/fine sand common; becomes very gradually more silty/sandy after 250 cm, until last 30 cm is a fine sand; cross-bedded laminations from 382-388; large lutie/silty lutite intraclasts 352-358, 772-384, 403-408; thin dark yellow-brown sand bed (2 mm) at 289. CALC CLAY WITH DETRITUS GRADES TO SLIGHTLY CALC CLAY/ DETRITUS

. 317

SET

SLT

SLT

SLT

12

1 24

3 \* 1

5.T -

SLT . . SLT

bottom if une: 414

Persone -

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Ship: CHN	Core No. 12 PC	
Expedition 119	Station No. 64	
Leg No. 2	Total Core Length 414 cm	
	(w) SECHMONICE (W)	

	S	Spondes					Ħ	5	1	5	Ħ	
	Siliceous	Redioleria							tr		Ħ	
-	Sili	2mots tO										
Wateria .	200	Others	4	7	4	-	10	10	00	_	2	
	2	Discoasters										
NCES (%)	Calcareous	Pteropods	tr	Ħ	Ħ							
INDAN	Sal	sfissolonnsN	55	43	45	1	1	Ţ,	1	2	2	
ESTIMATED ABUNDANCES (%)		2ms vo 7	2	6	2	2	Ħ					
IMATE		Clay	36	07	45	85	65	\$	20	63	9	
EST	Silt & Sand	Volcanic sbaska	Ħ			t	ä					
*	San	Zeolites										
inem	Silt	Mi cronodul es	Ħ	tt	Ħ	1	H	-	5	5	Ħ	
Indi		silt/ San Detrital Grains id	E	1	-1	10	25/	23/	18/	22/	30/	
	1_	SEDIMENT TYPE	calc ooze	calc ooze	ealc oege	slightly calc	ay tritus	calc clay with detritus	calc clay		slightly calc clay/detritus	
		TENET	1	7	13	28	7.5	175	265	365	412	

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Ship CHAIN Cruise 1/2 Leg 2 Sto. 64 Core No. 12 Pg. crr. Core Condition Leadlehd and St. Co. Core Condition Leadlehd Date Date Described 2 Col. St. Dy Thermark Physiographic location Resetts Tax Nice Gove No. of Alexanders, Egypt

Lithologic 607 Raykon

Detailed Description

CALC 002E
10 YR 6/3, pale brown
no mottling apparent
smooth, slightly silty lutite, very few forams
5.5.5

Per nene

1 1

4

CALC DOZE
2.5 Y 5/4, Hight olive brown
no mottling apparent
preropod hash in Lutite matrix

8. .1.

5.5-23
CALC OOZE
2.5 Y 5/4, light olive brown
no mottling apparent
slightly slity lutite with scattered forams

CALC COZE

10 YR 5/3, brown

10 YR 5/3, brown

10 PR 5/3, brown

10 PR 5/3, brown

10 PR 5/3, brown

11 PR 5/3, brown

12 PR 5/3, brown

13 PR 5/3, brown

14 PR 5/3, brown

15 PR 5/3, brown

16 PR 5/3, brown

17 PR 5/3, brown

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CALC COZE

5 Y 3/2, dark olive gray
shundant, small, very pale brown mottles
slightly slity lutite with scattered forams, thin
sand lense near top
sapropel material
S

CALC 002E/DETRITUS 5Y 3/2, dark olive gray no mottles sand

HIGHLY CALC CLAY S, horizontal

5 Y 3/2, dark olive gray no mottles smooth, slick lutite, no forams end of core

524

# SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

CHAIN On 119	Core No. 12 PG	Station No. 64	Total Core Length 40
Ship: Expediting	Ship: CHAIN	Expedition 119	Leg No. 2

ES

	1	10	sabuods	2						1.					1
		Siliceous	Radiolaria							İ					
	9	5111	2mo3 & 10												
	Materia	T	0.thers	7	2	4	2	25							
	S	1	Discoasters	t											
CES (	Biogenous	Calcareous	Pteropods	2	2	2	2								
INDAN	8	Cal	effeeofonnsM	09	50	077	30	-							
ESTIMATED ABUNDANCES (%)	-		Forams	~	2	7	2								
IMATE			Clay	30	38	07	55	59							
EST	Material	-	Volcanic				tr	ä							
1	ic Mat	Sand	Zeolites												
	Inorganic	ilt	Micronodules			2				T					
	Inor	S	Detrital grafins	±	11	11	1	01							
			SEDIMENT TYPE	calc ooze	calc ooze	celle ooze	celc oose	highly calc clay							
			LEVEL	2	18	24	30	39							

Page 1 of 3 VISUAL CORE DESCRIPTION

Ship CHAIN Cruise 119 Leg II Sto. 60 Core No. 138C.
Total Length 536 cm. Lat. 32' 44.0'N Long 24' 45.7'E Depth 2682 m.cmr.
Core condition Excellent. Date Described 15-15 by 18 m.cmr.
Physiographic location HERAPPI's BASIN', EASTERN MEPITERRANEM SEA. Detailed Description Lithologic

E: due to the lithology of the pilot gravity core on this station and the generally dubious appearance of unusual combinations of sediments, the stratification of the upper 1.4 meters of this piston core is questionable NOTE: .

7

DETRITUS/CALC CLAY

2.5 Y 4/2 dark grayish brown homogeneous throughout silty, medium sand (appears washed) large, 3 cm, irregular pale brown and gray inclusion of smooth, slick lutite

00

S (textural), irregular

5 Y 3/2 dark olive gray several zones of disturbed marbling of pale brown and SLIGHTLY CALC CLAY WITH DETRITUS GRADES TO CALC CLAY

olive gray lutite irregular texture throughout: some zones laminated with highly silty material, 35-48 cm, 125-135 cm; degree of consolidation varies, but generally firm, smooth lutite dominates the unit severe disturbance evident 65-78 cm, 107-123 cm

138-143

2.5~T~4/2 dark grayish brown somewhat graded bed with a few faint color laminations extremely silty lutite, grades irregularly to pure silt DETRITUS

143-163

CALC CLAY

9 Y 5/3 ollve, grades to 3/2 dark ollve gray
common intermottling of the grading hues in the zone
145-47; also fine ollve specks and flecks 148-158 cm
firm, slick lutite throughout

163-173

CALC CLAY WITH DETRITUS, GRADES TO DETRITUS
5 Y 3/1 very dark gray, grades to 3/2 dark olive gray
one fine, dark lamination at upper unit contact; otherwise honogeneous throughout
extremely silty lutite, grades to stiff, compact, textural

100

CALC CLAY 5 Y 5/3 olive

VISUAL CORE DESCRIPTION

Core No. 89 Sta Leg II =

Cruise Ship CHAIN a few very faint, irregular, light olive gray mottles; also, tiny black flecks appear 177-181 cm firm, smooth lutite grades to compact, silty lutite

Detailed Description

DETRITUS

5 Y 4/2 olive gray no mottling

firm, compact silt grades to dry, stiff, fine sand and then to medium sand concave downward

CALC CLAY 194-210

5 Y 7/3 pale yellow and 4/2 olive gray light-colored, firm lutite is mixed and whirled with fine silt and medium sand entire unit disturbed and unstratified

210-219

5 Y 4/2 olive gray a few faint dark laminations and bands 211-218 cm extremely sllty lutite, grades to stiff, very compact CALC CLAY WITH DETRITUS, GRADES TO DETRITUS

S, textural

silt with some sand

SLIGHTLY CALC CLAY 219-292

5 Y 4/2 olive gray and 3/2 dark olive gray several zones of very fine sapropel-like light olive gray flecks and specks (mottles) 220-227 cm, 235-25 cm, 244-254 cm, 260-277 cm firm, fairly compact luttic with varying amounts of silt; also a few pteropod fragments found in the light mottling zones

292-303

5 Y 6/3 pale olive homogeneous throughout smooth, slick lutite CALC OOZE

303-336

5 Y 5/2 olive gray file, pale olive mottling and flecks 303-315; large, pale olive band 325-330 cm firm, silty lutite, grades to compact, smooth lutite CALC CLAY

Lithologic

G, textural 182-194 ond of core: 96m 550 Perst Newanos.

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Page 2 of 3

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SMEAR SLIDE DESCRIPTIONS - N.H.O.I. SEDIMENT CORES

Page 3 of 3 Core No. 13PC

VISUAL CORE DESCRIPTION

87

Leg Z Sta.

Ship CHAIN Cruise 119

E Total Core Length 536 13 PC Station No. 68 Core No. CHN 119 Expedition Ship: Leg No.

336-536
DETRITUS
S Y 4/2 oilve gray
no mottling
compact, fine silt, grades slowly and evenly to
coarse sand
460-480 - several large, cemented sand stones are
found
end of core

Detailed Description

Lithologic Log

					EST	IMAT	D AB	ESTIMATED ABUNDANCES (%)	SES (	64			
		Ino	rgani	Inorganic Material	erial			80	ioger	Biogenous Material	ater	-	
			Silt	Silt & Sand	P			S	Calcareous	Sno		Silice	ce
LEVEL	SEDIMENT	Sand Sand Cetrital and sand descrital	Ri cronodul es	Zeolites	Volcanic sbrads	Clay	Forams	2[izzo]onnsM	Pteropods	Discoasters	syers	emoterd	eineloibeA
	detritus/	(59)											
1	calc ciay		tr			17	3	12			2		
35	slightly calc clay w/detritus	8 15	٤			74		1			m		
100	slightly calc clay	5				88		-			m		
-						I							1

sabuods

37 06/ /06 detritus slightly calc clay detritus

> 170 230

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127

06/ calc ooze detritus

> 295 380

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/95 detritus detritus

085

535

80

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tr 10

523

VISUAL CORE DESCRIPTION

Page 1 of 1

Ship CHAIN Cruise 119 Leg II Sto. 68 Core No. 1376Total Length 66 cm. Lat. 32, 49.0'M Long. 28-43.7'E. Depth. 2889 miler.
Core condition Exterient Date Described 13/m15 by 1 grades.

Described 13/m15 by 1 grades.

Described 13/m15 by 1 grades.

Detailed Description Restrate ----Lithologic

in ware from and light yellowish-brown innumerable, fine brown and light yellowish-brown microlamines in the cones 5-14 cm, 26-31 cm; also two broader (1.5 cm) bands, light brownlsh-gray and light gray at lower unit contact moist, slick, smooth lutite with a few forams 10-23 cm 5, horizontal CALC OOZE 0-37 1 

757

20 1

CALC GOZE, GRADES TO CALC GOZE WITH PYRITE, TO CALC GOZE WITH PYRITE AND DETRITUS, 87 322 dark olive gray a few broad, textural bands found throughout several zones of mulchy, sapropel-like preropod-rich material 36-41 cm, 58-55 cm, 61-63 cm, 71-75 cm; otherwise moist, smooth lutite becoming more silty at base 

×.

or very large, well-preserved pteropod test at 55 cm 82-88 S. CALC CIAY
5 Y 4/2 olive gray
homogeneous throughout
compact, extremely silty lutite
end of core

8

530

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

88 Total Core Length Core No. 13 PG Station No. 68 CHN 119 Expedition Leg No. Ship:

			E H H R K P			-	-	4	2					 
		SI	Sponges	ä	ä									
		Siliceous	Radiolaria											
	٦	Sil	2mots id											
	ateri	П	Отры	8	3	2			5					
94	Biogenous Material	ns	Discoasters											
CES (	iogen	Calcareous	Pteropods		2	9	,		-					
UNDAN	80	3	2 f i 2 2 0 1 o n n 5 M	09	9	30	30	3	~					
ESTIMATED ABUNDANCES (%)			Forams	5	4	2			5					
IMATE			Clay	35	56	45	33	3	16					
EST	erial	P	Volcanic shaeds											
	c Mat	San	2eolites											
	raani	Silt &	Micronodules	ä	Ħ									
	Ino		Detrital grains	2	נ	9	- 52		4					
			SEDIMENT	calc ooze	calc ooze	calc ooze	calc ooze w/	detritus	calc clay					
			LEVEL	1	35	52	08		87					

119 Leg 2 Sto. 70 Core No. 14PC. Date Described & Jan 74 by H. France Physiographic location counter Heaverus BASIN EAST. MED SEA Cruise Total Length 538 cm. Core condition 4xcellent Lithologic

14-29.5 CALC 002E 10 YR 6/4 11ght yellowish brown grades to 6/6 brownish yellow 10 YR 7/3 very pale brown since [10 TR 7/3 very pale brown smooth, slick lutite, except thin, fine silty layer at 12 cm washed and unstratified, soupy sand with lutite Detailed Description 2.5 Y 4/2 dark grayish brown CALC OOZE/DETRITUS no mottling CALC GOZE 0-5 1 T 13 7 18 7 1 + 17 + + + + + + + + × 10

no mottling stilly grades to slightly silty lutite, forams grade silty, grades to common 19.5 cm:volcanic esh (brown), 2 mm 4= 1

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silty lutite, abundant preropod fragments sapropel-like material S, but disturbed 34-160 5 Y 3/2 dark olive gray no mottling CALC OOZE WITH PYRITE 1

no mottling smooth is a smooth of the luttee smooth of the luttee smooth of the lutte smooth of the luttee (  $<100~\rm cm)$  and sand (  $<15~\rm cm)$  l cm sapropel with abundant pteropods at 68 cm CALC CLAY GRADES TO HIGHLY CALC CLAY/DETRITUS 5 Y 3/2 dark olive gray

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+ +

5 Y 3/2 dark olive gray very occasional mottle or two smooth, slick lutite grades smoothly to very silty CALC CLAY GRADES TO HIGHLY CALC CLAY/DETRITUS 2.5 Y 4/2 dark grayish brown no mottling CALC CLAY/DETRITUS 227-262 111.11.11.11.111 TILLI III III III

sand with very subdued laminae

VISUAL CORE DESCRIPTION

Page 2 of 2

14 PC

Core No Leg 2 Sto. Cruise

Ship

Lithologic

200

Detailed Description

CALC OOZE CALC OOZE 262-272 272-29 of care

Restrume

smooth, slick lutite, a few forams appear near bottom core liner cut right at contact  $5~\mathrm{Y}~3/2$  dark olive gray, grades to 4/2 olive gray no mottling slick lutite grades to slightly silty lutite 5 Y 3/2 dark olive gray no mottling

000

5 Y 4/2 olive gray grades to 5/3 olive marbled throughout silty lutite with forams common 5, motified contact CALC CLAY 291-297

small, scattered mottles from above slick lutite, few forams present at top but disappear 5 Y 4/2 olive gray, becomes somewhat darker towards CALC OOZE shortly bottom

5 Y 3/2 dark olive gray, except near bottom, sands grade into brown of lower unit CALC GOZE GRADES TO CALC GOZE/DETRITUS 310-398

smooth, slick lutite grades smoothly to fine and medium sand; sands show cross-bedded laminations from 370-397 cm, turbidite (?) void (355-360), has been partially filled by wash from above and below very gradational no mottling

homogeneous, medium, very hard sand end of core CALC OOZE/DETRITUS 10 YR 4/3 brown no mottling

VISUAL CORE DESCRIPTION

Page / of

Detailed Description Physiographic location CENTRAL HEROPOTUS BASIN Core condition excellent 0-1 1 1 . 1 . Total Length\_ 1. Ship CHN Lithologic Persuence E) 538 SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES 14 PC 70 Total Core Length Station No. Core No. NHO 119

bottom of core SLT . . : A 6 1.1.1 1000 Richard SHHER Spondes Biogenous Material
Calcareous Siliceous Radiolaria 2 moterd 15 13 19 20 20 2 2 Others Discoasters ij tr Ħ pteropods 21 14 25 10 84 stizzotonneN 35 Forams tr ij 1 14 CISA 20 15 42 14 99 20 Inorganic Material Silt & Sand Volcanic 85 20011265 Micronodules 1 Detrital 04 10 highly calc clay w/detritus 25 18 ooze w/ detritus calc ooze/ detritus volcanic ash with pyrite calc ooze SEDIMENT calc ooze calc clay calc ooze TYPE LEVEL 19.5 2.5 120 348 537 271 52 32 04

CALC OOZE 10 YR 7/3 very pale brown fine laminae (1 mm) of dark and reddish brown (4-12 cm) smooth, slick lutite 3 mm of shell hash overlies a silty lutite which becomes somewhat less silty with depth; forams grade from scattered to common as the common bed of brown volcantc ash at 19 cm 10 YR 6/4 light yellowish brown grades to 6/6 brown-ish yellow no mortifing lutite with pteropod fragments abundant sapropel with extremely fine laminations silty lutite with a few forams, S, but disturbed 10 YR 5/4 yellowish brown no mottling CALC OOZE WITH PYRITE 5 Y 3/2 dark olive gray no mottling CALC GOZE 13-28 CALC 00ZE S 28-34 1-13 4 18.

H.H.

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ESTIMATED ABUNDANCES (%)

Expedition Leg No.

Ship:

34-108
CALC CLAY GRADES TO HIGHLY CALC CLAY/DETRITUS
5 Y 3/2 dark olive gray
no mottling
smooth, slick lutite grades smoothly to silty lutite
(~90 cm) followed by fine sand
1 cm of above unit at 60 cm

sequence from 3 to  $20\,\mathrm{cm}$  is repeated, although compressed to 1/3 of its original thickness S, concave up 108-114

sequence from ~90 to 108 cm is repeated due to repetition of distinctive stratigraphic features which are not repeated in the piston core, rebound of the pilot core is assumed end of core VISUAL CORE DESCRIPTION

Page 1 of 3

Ship CHAIN Cruise 119 Leg II Sta. 72 Core No 15 PC. Total Length 416 cm. Lat 33º 19.45'N Long 27'40.34'E Depth 2816 m. Lor Core condition ExcELLENT Date Described 19, 19 19 PAPP. Physiographic location DISTRE LINE LINE AND 18 MENAMENT EMERN MED.	Detailed Description		0-2	10 YR 6/4 light yellowish brown	homogeneous throughout moist, unconsolidated lutite with a few forams when the consolidated lutite with a few forams	2-4 CALC COZE WITH MN MICRONODULES 10 TR 4/4 dark yellowish brown innumerable, iden microlaminae; dark and light yellow- brown alternate smooth, moist lutite 5 4-159	HIGHLY CALC CLAY, GRADES TO CALC CLAY WITH DETRITUS 5 Y 3/1 very dark gray and 3/2 dark olive gray	dark olive gray sapropel-like pteropod-rich bands appear 4-5 cm, 12-18 cm, 36-39 cm 57-67 cm, 110-114 cm	very moist, slick lutite throughout with the above mentioned exceptions S, textural	159-246 CALC CLAY WITH DETRITUS 5 Y 3/1 very dark gray and 5/2 olive gray	extensive intermarbling of the colors above in zones	moist, smooth lutite with preropod fragments and for- ams abundant in the intermarbling zones	S, very horizontal 246-308	CALC OOZE GRADES TO CALC OOZE/DETRITUS 2.5 Y 6/4 Hight wellowsh brown	slight, faint, light brownish gray mottling scattered throughout	more compact, slightly silty lutite with increasing "silt" (calc fragments); content grades to fine (calc	iragment) sand S, very horizontal	308-416 CALC CLAY WITH LAMINATIONS OF DETRITUS	5 Y 3/1 very dark gray a few zones of olive gray banding and fine flecks,	smooth, firm lutite with a few fine beds of pteropod	coarse preropod ooze 415-416 cm	S, very	ſ
Ship CHAIN Cr Total Length 416 Core condition E Physiographic locat	Lithologic	Philhean	1 1 1 1	1 1 1			1	0 1 1	1 0 0 0	1 10	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	114	111			1	11		1 1 1	144	1 1 1	1,1	1111
					-	дыжный		9	-1		1	_		_	_						-1	1	1
					sno	Spondes		tr			-	-	_	-	-	-		_			-	-	-
			<b>E</b>		Siliceous	Radiolaria		-	-	+	-	-	-	-	+	-					-	+	-
					Si	Diatoms		0		-	-	-	-	-	-	-					-	-	_
					Biogenous Material	others	7	20		+	-	-	-	-	-	-					-	-	-
		1	127	(*	Suo	Discoasters																_	_
CORES	PG			CES	Calcareous	Pteropods	1	1				1	_	_	_								_
EN	14 PG	70	ength.	ABUNDANCES (X)	2	sfissolonnsM	55	12															
SEDI			e Ler	-		Rorams	3	5															
÷	V	ž uo	S	ESTIMATED		Clay	z,	25															
	Core No.	Station No.	Total Core L	ESTI	[8]	Volcanic				+	T			1	T	1							
- 8					Inorganic Material Silt & Sand	2 tres fov	-	-	-	+	+	+-	-	+	+	+	-	-	-			-	-
¥0110					t &	Selites	-	_	-	+	+	+	-	+	+	+-	-	-	-		-		$\dashv$
SCRI	1				Sil	Micronodules	-		-	+	+	-	-	-	+	-	-	_	-		-	-	-
33		1			I	Detrital	1	35															
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES	D: CHAIN	Expedition 119	Leg No. 2			SEDIMENT	calc ooze	calc ooze/															
	Ship:	Exp	Leg			LEVEL	-	126			-				-								

Ship CHANN Cruise 119 Leg IL Sta 72 Core No

1516

841-968 (cont.)
and lamination
and lamination
compact, slightly silty lutite with scattered, silty
laminations and zones of preropod-rich sapropellike material
end of core

Detailed Description

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

#### VISUAL CORE DESCRIPTION

Page 1 of

Ship CHAIN Cruise 119 Leg II Sto. 72 Core No 15PG.

Total Length 136 cm. Lat. 31º 1945 N. Long 22º 40.34º E Depth 2828 m.dm.

Core condition EXCEUTENT Date Described N.D. 10 Brack.

Physiographic location Distrib NICE Lance. NINSTH & NIEX IMPRIN . ENSTERN MED.

Detailed Description Lithologic

CALC OOZE WITH Mn MICRONODULES
10 YR 4/4 dark yellowish brown
innumerable, fine microlaminae; dark and light yellowish brown alternate 10 YR 6/4 light yellowish brown homogeneous throughout moist, unconsolidated lutite with scattered forams 5, horizontal 0-16 CALC 00ZE ははは 14 4 1 1 4 11 fleistacene 52

Biogenous Material
Calcareous Siliceous

Inorganic Material Silt & Sand

ESTIMATED ABUNDANCES (%)

E

896

Total Core Length

Core No. 15 PC

CHN

Ship:

Expedition 119

Leg No.

Station No. 72

14' 14 11

1 1

sabuods

Diatoms

Others

Radiolaria

Discoasters

sfissofonnsN

Forams

Clay

Spashe

Mi cronodul es

SEDIMENT

TYPE

LEVEL

Seclites

Detrital

pteropods

smooth, moist lutite

19-138

Ally :

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55

22

15 15

79

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highly
calc clay
highly
calc clay
calc clay

15 20

calc ooze

20

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very moist, slick lutite throughout, with the above exceptions a few fine, silty laminations appear 90-135 cm end of core

HIGHLY CALC CLAY

Y 3/1 very dark gray and 3/2 dark olive gray

S X 3/1 very dark gray and 3/2 dark olive gray

alark olive gray sapropel-like, pteropod-rich bands
appear 19-21 cm, 30-38 cm, 50-52 cm, 67-75 cm,
135-137 cm

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calc ooze/ calc ooze/ detritus

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calc ooze slightly calc clay

calc ooze

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detritus

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9

calc ooze slightly calc clay slightly calc clay

006

196

83

tr

20 45

37

calc ooze

calc clay

11

85

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

15 PG

Core No.

CHY

Ship:

VISUAL CORE DESCRIPTION

1523 m. Low Total Length 1812, cm. Lat. 33º 14.34 Long 30º 1995. Depth 25.23m Page 1 of 4

Core condition <u>Excellent</u> Date Described Mente by Minker. Physiographic location CENTRAL NEE CANE; EASTERN MEDITERAMENN SER. Lithologic

Detailed Description

moist, unconsolidated, slightly silty lutite note: upon comparison with the pilot core, it appears that the piston core "blew by" (failed to recover) the upper 30 cm of the sediment

5 Y 4/3 olive, grades to 2.5 Y 4/2 dark grayish brown fine, tiny, light brown mottles and flecks 0-6 cm; otherwise, faint, olive gray mottles scattered

CALC GOZE

0-30

throughout

generally moist, slightly silty lutite with scattered forams: a few fine silty laminations and lenses in S, mottled

moist, slick lutite with a few forams and scattered, fine, silty lenses a bright, brownish-yellow band appears at unit basal

10 YR 5/3 brown and 4/3 dark brown intermittent bands and mottles of the colors above with a particularly dense zone of dark mottling 162-167 cm

CALC OOZE

S, mo

varying hues of 10 YR 7/4 very pale brown, 6/4 light yellowish brown and 5/3 brown common intermottling and broad banding of the colors above

CALC OOZE

30-135

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~			Biogenous Material	Others	00	2	9	4	9		T							
1 38	12	3	N ST	Discoasters														
		ES ()	Calcareous	pteropods	2		-	-	-									
1	d d	ESTIMATED ABUNDANCES (%)	Sale	2 ( † 2 2 0 1 0 n n 5 V	55	09	15	13	12					T				
-	lotal core Length	D ABU	11	Rorams	9	5	2		3									
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-	1014	EST	Inorganic Material Silt & Sand	Volcanic shards														
			& San	setffoeZ														
			Silt & Sand	Mi cronodul es	2	15	00	t	1									
			Ino	Detrita? grains	4	<b>B</b> 2	נו	3	2									
,				SEDIMENT	calc ooze	calc ooze w/	highly calc clay	highly calc clay	highly calc clay									
-	reg wo.			LEVEL	1	18	35	80	136									

2.5 Y 5/2 grayish brown, grades to 3/2 very dark gray numerous, dark clive laminations with white calc flecks and microlaminae included within

10 YR 7/2 light gray grades to 6/3 pale brown slight, faint intermottling in the transitional zone moist, a bit more compact, slightly silty lutite with

CALC OOZE

203-242

scattered forams

HIGHLY CALC CLAY

242-300

CAIC GOZE WITH LAMINATIONS OF DETRITUS
10 YR 6/3 pale brown and 4/2 dark brownish-gray
common intermettling of the two colors throughout
5, horizontal

S, mottled 188-203

contact

Ship CHAIN Cruise 119 Leg II Sta 74 Core No. 16PC

5 Y 7/2 light gray, 5/2 olive gray, and 3/2 dark olive 242-300 (cont.)
firm, silty lutite with scattered forams and pteropod
fragments; again a few fine, silty laminations
scattered throughout extensive intermarbling and lamination of the colors above repeated beds of foram/pteropod-rich material alternate with slick, smooth lutite and a few fine, silty laminations CALC OOZE

S Y 7/2 light gray and 6/2 light olive gray somewhat irregular intermarbling of the colors above stiff, plastic-like lutite with abundant forams and scattered lithified calcareous lumps 5 Y 7/2 light gray, grades to 6/2 light olive gray a few large, dark gray mottles 410-415 cm firmer, more plastic, foram-rich lutite S, mottled 426-455 intensive intermarbling and mottling of the colors stiffer, more compact lutite with scattered forams and small lithified lumps large, dark olive gray inclusion 452-455 CALC OOZE
10 TR 6/3 pale brown, grades to 5/2 grayish brown common, irregular, grayish brown mottling firm, slightly silty lutite with scattered forams firm, slightly silty lutite with abundant forams very S, horizontal 2.5 Y 5/2 grayish brown, grades to 5 Y 3/2 dark olive gray 5 Y 3/2 dark olive gray a few light olive gray laminations found within Detailed Description sapropel-like, broad lamination horizontal G, mottled 300-346 CALC OOZE CALC OOZE CALC OOZE CALC OOZE 401-426 346-401 1 1 1 1 2 2 1 1 111 1 10 111 1 1 1 1 1 1 1 1 1 101 1 1 11111 11 Lithologic 8 1,1 141 1 Huyacme 100 100 ייין 3 Top

end of ibre 1812 um

VISUAL CORE DESCRIPTION

Cruise 119 Leg II Sta. 74 Core No.

Ship CHAIN

Detailed Description

Lithologic

1670

Poge 3 of 4

very nice preservation of cyclical sedimentary process S CALC CLAY WITH LAMIMATIONS OF DETRITUS

5 Y 3/1 very dark gray, grades to 3/2 dark olive gray extensive (small) fine, and (large) irregular mottling and burrowing 560-594; fine laminations 594-60 cm firm, compact, smooth lutite with many fine, well-preserved silt (.5 cm) laminae forams abundant in some laminae 595-620 cm very S, horizoneal stiff, smooth lutite inter-laminated with foram/ptero-pod-rich, slightly silty lutite 5 Y 7/2 light gray, grades to 6/3 pale olive strensive, very fine, light gray mottling 545-548 cm, and a few large, dark gray burrows stiff lutite with abundant forams CALC CLAY

5 x 3/1 very dark gray and 3/2 dark olive gray
repeated, even, sharp (1 cm wide) laminations of the
colors above 658-671; extensive, fine mottling 658fine, very small light olive gray mottling and flecks firm, stiff lutite with abundant forams and pteropod 5 Y 7/2 light gray, grades to 6/2 light olive gray slight, faint intermottling and lamination of the 5 Y 6/2 light olive gray intensive, fine mottling and burrowing 653-658 cm stiff, compact, slightly silty lutite with forams common 640-653 cm CALC OOZE WITH PYRITE, ALTERNATES WITH SLIGHTLY stiff lutite with abundant forams 5 Y 3/2 dark olive gray fragments sapropel-like zone colors above s, horizontal S, horizontal CALC OOZE CALC OOZE CALC DOZE CALC OOZE 663 cm 559-640 528-539 504-528 539-559 840-658 658-681 <del>մափումակակավումակակակակակակակակակակակակ</del> SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Poge 4 of 4 1110 Core No. 74 Sta H 545 VISUAL CORE DESCRIPTION Leg 611 Cruise CHAIN Ship

Detailed Description Lithologic Log

ES |

1012

Total Core Length

16 PC

CHN 119

Ship:

Expedition

Leg No.

14

Station No. Core No.

> 5 Y 7/2 light gray a small zone of extensive, fine mottling at unit basal contact very stiff, more compact lutite with foram content increasing to abundant at base of unit CALC DOZE, GRADES TO HIGHLY CALC CLAY 5 Y 4/1 darks gray only a frow fine laminae 919-933 cm stiff, smooth lutite with silty laminations

CALC OOZE

891-919

S, horizontal
971-1012
FLOW-IN
end of core

<del>իտրախումակամասիավառիակակականականակարականակ</del>

176-916

10 sabuods Biogenous Material
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25

65

hly, calc clay

016

H

Total Length 119 cm. Lat. 33º 14.8ºN Long. 30°1619. Depth 2523 murr. Core condition <u>Excertent</u> Date Described [1] by Britan Physiographic location <u>CENTRAL NICE (INF.</u> <u>CANTERN MEDITER PROFILE FACEN CER</u>

Detailed Description Lithologic Pessieno -

CALC GOZE WITH YM PHICKOROBULES
10 YR 4/4 dark yellowish brown
innumerable fine microlaminae, dark and light yellowish
brown alternate
smooth, moist lutite 0-16
(GALC 002E
10 YR 6/4 light yellowish brown homogeneous throughout moist, unconsolidated lutite with scattered forams 5, horizontal 

20-37

CALC GOZE

ON 3/2 dark olive gray innumerable and very fine, light gray mottles, burrows, and flecks and flecks preropod-rich lutite

S 37-68

OALC GOZE

2.5 Y 4/2 dark grayish brown faint, olive gray mottling scattered throughout moist, unconsolidated, slightly silty lutite 611-89 1011 and fire 14 m

CALC OOZE

ž L expeene

varying hues of 10 YR 7/4 very pale brown and 6/4 Light yellow brown common intermottling and broad banding of the colors above generally moist, slightly silty lutite with scattered forams end of core

548

## SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 16 PG	Station No. 74	Total Core Length 119 cm
Ship: CHN	Expedition 119	Leg No. 2

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		Siliceous	Radiolaria								1-		T	11				
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	OUS	S	Discoasters								1							
CES	logen	Calcareous	Pteropods	2	ij		tr		-									
ESTIMATED ABUNDANCES (%)	2	3	2 [ i 2 20 ] On n 5 N	09	30	35	40	\$5	35									
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¥			CJay	28	23	77	31	24	57									
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	1	1	SEDIMENT TYPE	calc ooze	calc ooze w/ Mn microhodules	calc ooze	calc ooze	calc ooze	calc ooze				-					
			LEVEL	-	18	25	09	80	118									

549	VISUAL CORE DESCRIPTION	cm. 101.33" 42.753" N I and 30" 49.73" E Death 25.95 core	KIDSE COMPLEY NILE COME, EAST, MED SEA	Detailed Description		0-2 void	2-71 CALC 002E	light yellow brown, 6/3 pale brown,	colors, faint suggestion of 5 Y 4/2 olive gray at	scattered intermottling of above colors	very silty lutite with scattered forams 10.5-11cm, 42-42.5 cm, 28-29 cm volcanic ash; several	large calcareous fragments at 31 cm	S, disturbed 71-92	whole core below this point has a very disturbed appear-	ance, some of which is clearly due to coring, while	CALC DOZE	10 YR 5/3 brown	scattered mottles of pale brown silty lutite with scattered to common forams		92-246 CAIC 007F	10 YR 7/1 to 5/1, light gray to gray, and 6/2 light	brownish gray	intermatbling and distorted Saminations of above colors are common; 2 beds of 5 % 3/2 dark olive gray appear	at 145-150 cm and 204-208 cm	generally slity to very silty lutite with torams common S	246-254 CAIC DOZE	10 YR 7/1 light gray and 5/1 gray	no mottling	lithified lumps of lutite	254-354	CALC 002E 2.5 Y 5/2 grayish brown grades to 10 YR 7/1 and then to	6/1 (light grays) with periodic sharply contacted beds	of 5/2 light brownish gray marbling and distortion between above colors is common;	some very small white and dark mottles are common in both brownish grave and experal larger hurrow. He	mottles are also present
	VISUAL COR	Ship CHM Cruise Total Length 895 cm	100	Lithologic Log	Perment + + + + +	1,	+ > + > + · · · · · · · · · · · · · · ·	10	10	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1		1 1 1	300 111 1 111 1 111	1 1	H	 	1 1	+ + + + + + + + + + + + + + + + + + + +	14 1	1 1 1 1 1 1 1 1	4	1010	4   4   1   1   1   1   1   1   1   1

19 90 Core No 26 Leg 2 Sta

611

Cruise

Ship CHN

Page a of 2

Detailed Description Linologic

254-351 (cont.)
2 silt beds, dark gray (5 Y 4/1) and dark olive gray, appear at 294-295 and 297-299 cm

111

1 +

354-488
CALC 002E
CALC 002E
5 Y 7/1 light gray, 6/2 light olive gray, 3/2 dark
olive gray - above colors appear in 4 consecutive
cycles (354-382, 382-41), 417-464, 464-468): the
degree of mottfing varies considerably between sapropels; 444-464 cm sapropel is interbedded with
slick lutite, 5 Y 4/1 dark gray
marbling and disturbance are present, as are several
large burrow-like structures; mottling is present
over only small sections

the sapropels have a humous-like organic lutite texture, while the remaining sediments are silty to very silty lutites; forams vary from scattered to abundant in a non-cyclic manner

1

101

+

488-750
CALC OOZE INTEREDDED WITH CALC CLAY

CALC OOZE INTEREDDED WITH CALC CLAY
5 Y 7/1, 6/1 18ght grays grade gently to various hues
of 18ght olive gray (6/2) below ~580 cm; numerous
bands (~1-4 cm) of 5/1 gray (calc clay) interrupt
the above colors; increasing with depth
marbling and mottling between above colors is common
throughout, intensely mottled from 540-552 cm; some
laminas are clearly sievered and not burrowed
predominately a silty lutite with scattered to common
forams, the darker beds being somewhat less silty;
621-634 cm slightly silty lutite (5 Y 3/1, very dark
gray - slightly calc clay - interbedded with dark
olive gray (3/2) sapropelic lutite

750-791 CALC OOZE CRADES TO NANNO OOZE  $5~\chi~7/2$  light gray grades to 8/1 white and back to 7/2minor mottling stiff, very silty lutite with scattered forams very gradational 791-895

CALC OOZE

5 Y 7/2 light gray and 6/2 light olive gray appear in microlaminations scattered mottling of above colors silty to very silty lutite, forams vary from abundant to scattered end of core

torton of core 3

Pleutolene

silty to very silty lutite with common to abundant bio-genic grains

Page / of /

Cruise //9 Leg al Sto //e Core No //re Core No //re Core No //re Core No //re Core No //re Core To //re Core Lat. 255 42.751/re Core Story 20 40.275 cer. Corion Isia Ribee Compect Nice Core From Med Jan 24 by T. Ferrest Corion Isia Ribee Compect Nice Core From Med Jan 24 Core Core Core Core Core Core Core Core	10 YR 6/4 light yellowish brown no mottling	very silty lutite with scattered forams	14-22 CALC 002E 5 Y 3/2 dark olive gray no mottling moist, silty lutite with scattered forams sapropel-like material 5 22-52	10 We with the state of the somewhat with depth no mortifus	extremely silty lutite, with scattered forans S. large burrow has disturbed contact	52-62 CALC 002E	10 YR 7/2 light gray no mottling	extremely silty, stiff lutite, forams fairly common 58 cm - 5 mm dark brown volcanic ash	62-106 GALC GOZE	10 YR 5/2 grayish brown pale, small mottling (90-94) scattered below light	gray lamination silty lutite with scattered forams and pteropod	fragments 82.5-84 cm, 10 YR 6/2 light brownish gray volcanic	ash; 96 cm, 5 mm volcanic ash 10 YR 4/2 dark gray- ish brown	end of core					
Ship Condition Cruise Total Langth Acc. cm. Core condition Essuer Physiographic location Issu Lithologic Log	<ul><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li><li>↑</li></ul>	* d * d * d * d * d	Spondes  Set 1 Set 100 C C C C C C C C C C C C C C C C C C	2	ı	4	-		1	ılıı.	···[·	100	TTT	4					<del></del>
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Core NoStation No. Total Core	ESTIMATED	6	Volcanic shards	2	2	5	1	3	2	7	2	2	5	7	7	2	6	-	
3 % 1		Inorganic Material Silt & Sand			-		-	-		+		+		-		-	+	-	
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Ship: CHAIN   Core No.   17 PC	- 1	. 1	SEDIMENT TYPE	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze	slightly calc clay	calc clay	nanno ooze	calc ooze	calc ooze	
Ship: Expedi			LEVEL		1	152	254	270	312	410	425	484	165	626	200	780	835	768	

Ship <u>CAAIM</u> Cruise 1/9 Leg 2 Sto. 78 Core No. 18 PC.
Total Length 258 cm. Lat. 34" 2084 N Long 30" 55.84 E Depth 2584 cm.m.
Core condition <u>Excercent</u>
Date Described 2 Det 35 by I Faments
Physiographic location Replication Repet 5 W of Cypaus E. Mee Sea

Detailed Description

Lithologic Log CALC 002E
10 YR 6/4 light yellow brown grades to 4/4 dark yellow brown and back to 7/4 very pale brown no mottling very silty lutite with scattered forams

Page / of 5

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

	Mer. Mc		
Core No. 17 PG	Station No. 76	Total Core Length 106 cm	
CHAIN	611	2	
Ship:	Expedition	Leg No.	

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2.5 Y 5/2 grayish brown grades into a banded unit of 10 YR 7/4, 6/4, 6/3, very pale brown, light yellow brown, and pale brown
scattered mottles brown scattered mottles between the various bands are present throughout and sharp contacts between bands are rare slity lutite with common forams; 1 cm calc sand layers at 36, 124 cm layers: 49-52 cm, 10 YR 4/2 dark grayish brown and 86-88 cm, 10 YR 6/2 light brownish gray

above unit continues with addition of several brown (IQ YR 5/3 bands of smooth lutite very low in formas (GALC GLAY); the bottom contacts of these beds are generally sharp

144-239

5 Y 3/2 dark clive gray a few very pale brown mottles and fine to medium laminations

CALC OOZE

239-246

silty lutite with scattered forams sapropel zone S

HIGHLY CALC CLAY WITH PYRITE 5 Y 3/2 dark olive gray small, very pale brown mottles common from 13-16 slightly silty lutite with few forams and pteropods sapropelic material

CALC OOZE

5 XR 3/3 dark reddish brown appears to be very finely laminated silty lutite with scattered forams

CALC OOZE WITH MN MICRONODULES

2.5 Y 5/2 grayish brown grades to 10 YR 6/3 pale brown few mottles from 26/-2/4 cm silty lutite, forams vary from very few to abundant in spots, generally scattered CALC MOZE GRADES TO CALC CLAY TO CALC MOZE
10 YR 6/3 pale brown grades to citve (5 Y 4/3), citve
gray, dark citve gray and back to pale brown in
this bends 5 Y 5/2 grades to 4/2 olive gray few pale mottles near top failty lutter with scattered forams grades quickly to a smooth, sinck lutter devoid of forams 5, but core liner cut right along contact lutite; forams vary from none to scattered; 1 cm calc silt at 311 cm - 5 Poge a of S CALC CLAY

5 Y 4/3 olive grades to 4/2 olive gray
small, pale olive mottles increasing from 294-306
smooth, slick lutite 78 Core No. few mottles of dark olive gray silty lutite with scattered to common forams Detailed Description Leg 2 Sta 10 YR 6/3 pale brown no mottling smooth, slick lutite smooth, slick lutite 5 Y 4/2 olive gray no mottling 555 VISUAL CORE DESCRIPTION 5 Y 4/3 olive no mottling CALC CLAY CALC OOZE CALC OOZE CALC CLAY CALC CLAY 281-306 246-259 259-281 325-345 317-325 Ship CHAIN Cruise 0-0 of core ass 0 > > > Lithologic ۵ 0 meg. o 10 3 38 3 80 300 Perfece

CALC CLAY AND CALC OOZE (pale browns)
repeated cycles of 10 YR 6/3 pale brown, 5 Y 5/2 and 4/2
olive grays, with sharp contacts
occasional mottling of pale brown into lower bands
smooth, slick luttee except forams generally scattered
in pale browns 5 Y 6/1 gray grades into 10 YR 7/3 very pale brown medium size mottles in various grays are common to 591 slightly silty lutite with scattered forams and few 10 06 10 YR 6/2 light brownish gray grades to 7/3 very pale Poge 3 of 5 HIGHLY CALC CLAY GRADES TO CALC CLAY  $10~\mathrm{YR}~4/2~\mathrm{grayish}$  10 YR  $4/2~\mathrm{grayish}$  brown grades to  $5/2~\mathrm{dark}$  grayish 632-633 cm sandy unit of volcanic ash, forams and detritus; 640-643 sandy unit of volcanic ash Core No. lutite with fine, organic humus texture finely laminated sapropel no mottling lutite with fine organic humus texture Detailed Description lutite with scattered forams heavily mottled from above smooth, slick lutite Leg 2 Sta. 10 YR 7/3 very pale brown no mottling 5 Y 3/2 dark olive gray no mottling CALC CLAY 5 Y 3/2 dark olive gray HIGHLY SILIC-CALC CLAY sapropelic material VISUAL CORE DESCRIPTION pteropods CALC OOZE CALC OOZE CALC OOZE brown Cruise 119 361-533 533-557 557-598 598-623 623-645 356-361 Lithologic Ship CHAIN արախությունականականականականականականականական

Core No. 18 PC 18 Leg 2 Sta. 611 Cruise Ship CHAIN

Lithologic

100

Page 4 of 8

645-671 (cont.)
intense marbling (disturbed laminations?) 654-668 cm
sally luttie, forams increase dramatically from few
ro abundant

S, but disturbed

5 Y 3/2 dark olive gray grades to 2.5 Y 3/2 very dark grayIsh brown CALC OOZE

no mostling very silty lutite with abundant forams microlaminated sapropel with several larger laminae of malcolaminated sapropel with several larger laminae of malcolaminated sapropel with several larger laminae of

695-717

10 YR 4/1 dark gray CALC SLAY

very homogeneous smooth, sticky lutite sapropelic laminae from 712-714 cm

CALC OOZE 717-720

silty lutite with common forams microlaminated sapropel 5 Y 4/2 olive gray no mottling

720-734

<del>լարությությունությունում անականիականիականիականիականիականիա</del>

10 YR 7/1 light gray CALC OOZE

no mortling very silty lutte with abundant forams grades to scattered forams 33.1 cm bed of volcanic ash; 727, several 5 mm black solidified tubes

734-746

CALC CLAY

2 Y 6/2 light olive gray grades to 5/2 olive gray abundant small light olive gray mottles stating grading to slightly selly lutte, no forams wilty grading to slightly selly lutte, no forams

CALC CLAY 692-972

5 Y 4/2 olive gray no monomitties amonomitties smooth, sticky lutite S, but several cms of interbedding with lower unit

VISUAL CORE DESCRIPTION

Page S of 5

Core No. 18 PC Leg -8\_ Sta Ship CHAIN Cruise 119

Lithologic Log

Detailed Description

10 YR 6/3 pale brown slight mottling from above silty lutite with forams common CALC OOZE 911-691

CALC GOZE 776-792

silty lutite with forams common and organic texture finely laminated sapropel 5 Y 3/2 dark olive gray no mottling

5 Y 4/2 olive gray occasional very dark, small mottles silty lutite with scattered to common forams CALC CLAY 192-826

10 YR 6/3 pale brown scattered, subdued mottling silty lutite with scattered to common forams CALC OOZE 826-833

CALC CLAY 5 Y 5/2 olive gray abundantly mottled from above smooth, slick lutite

5 Y 3/2 dark olive gray mottles of above are common to 844 lutite grades to silty lutite with no forams CALC OOZE

 $10~{\rm YR}~6/3$  pale brown subdued scattered mottles slity lutite, forams increase sharply from few to

833-842

<del>ի արակապատիակապատի գրա</del>րակակագառիակարագությությություն

842-846 CALC CLAY

end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

#### VISUAL CORE DESCRIPTION

Page / of

| 19 | Leg 2 | Sto. 7 | University | 2494 CHT. | Lot 34' 2084 | N Long 32' 35.84 & Depth 2494 CHT. | Lot 34' 20 by Themsel | Date Described 9 46, 75 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Themsel | Cht. 15 by Them Physiographic location Megi Terranean 617 Core condition Excertent Cruise Ship CHAIN Lithologic

Detailed Description

bottom to ( leighte ACHUHS ร็อธีบอีซรี Biogenous Material Siliceous Rediolaria E Smoterd 22 12 Others -2 2 00 858 tr tr Discoasters ESTIMATED ABUNDANCES (%) Calcareous pteropods tr H T. tr t tr tr tr 18 PC Total Core Length 7.8 sfissofonnsk 20 tr 12 29 28 25 12 19 42 48 Station No. 17 tr tr tr Forams Core No. Clay 40 20 06 92 85 63 23 09 18 58 45 45 Volcanic Inorganic Material Silt & Sand 23 Sections Mi cronodul es tr 15 t H grains calc ooze v/
Mn micronodulgs tr 5 1 nighly silicvolcanic ash calc clay SEDIMENT nanno ooze CHI Expedition 119 calc ooze calc clay calc clay calc ooze calc clay calc ooze TYPE calc clay calc clay celc Leg No. Ship: LEVEL 190 290 390 550 580 619 633 069 160 785 857 995 95

CALC OOZE
10 YR 6/4 light yellow brown, grades to 5/4 and back to 6/4.
8-10 cm intense mottling from above unit silty lutite with scattered forams thin bed of pteropod shell hash (10 cm) CALC 002E
10 YR 5/4 yellow brown
no mottling apparent
silty lutite with scattered forams
6 10 YR 5/3 brown a few mottles of above unit smooth, slick lutite very gradational HIGHLY CALC CLAY 0-1 11 4 40 DISTURBED 1

GALC OOZE WITH NN MICRONODULES grades from 10 YR 6/4 light yellow brown to 5 YR 3/3 adds reddish brown very finely laminated silty lutite with scattered forams

HIGHLY CALC CLAY WITH PYRITE
5 Y 3/2 dark olive gray
abundant very pale brown mottles
slightly silty lutite with scattered forams
very finely laminated sapropel 28.5-38.5

38.5-63

CALC OOZE
2.5 Y 5/2 grayish brown grades to 10 YR 6/3 pale brown
few small mottles throughout
silty lutite, forams grade from scattered to few; 1 cm
of biogenous sand at 62 cm

CALC OOZE

10 YR 6/4 light yellow brown a few mottles throughout silty lutite, forams grade from common to scattered 74-77.5 cm dark grayish brown (10 YR 4/2) volcanic ash bed; 83-87 irregular void with an inclusion of vol-canic ash (10 YR 6/2 light brownish gray) straddling the void; lowest 10 cm are somewhat disturbed end of core Page 1 of 5

	5 Y 3/2 dark olive gray scattered, small, pale brown mottles slightly silty lutite saprope.	3-42  CALC DOZE  2.5 Y 5/2 grayish brown, grades to 10 YR 6/3 (varying hues of pate brown)  small, subdued mottles scattered throughout slity lutite with scattered forams 29-31 cm volcanic ash 5, mottled contact	42-56 HIGHLY CALC CLAY	10 YR 4/3 dark brown small, nale brown mortles common	smooth, slick lutite grades to a very silty lutite 52-56 cm	. 56-180	CALC 002E  OF REAL PROPERTY OF A PROPERTY OF	silty lutite with scattered to common forams i cm bed of volcanic ash at 69 cm; 85-86 foram sand	180-187	CALC OOZE 10 YR 5/4 yellow-brown	no mottling stiff lutite with scattered forams	S S S S S S S S S S S S S S S S S S S	GALC CLAY 5 Y 3/2 dark olive gray	L		- 192-211 CALC 00ZE	5 X 4/2 olive gray, grades to 10 YR 6/3 pale brown intermetting between above colors	silty to very silty lutite with forams common	S, mottled contact	
Ship CHM Cruise  Total Length 833 cm. Core condition excellent Physiographic location Ears Lithologic Log	11 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	† † † † † † † † † † † †	1 1	4 4- 4- 1		1 1 1 1 1	1 1	         	 	1	注	1. 1. 1. 1.	1. () t in	, 1 ; 1 ; 1 ; 1	+	1 1 1 1 1 1 1 1	1 .   	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	+	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
CHN COPE N. H. O. I. SEDIMENT CORES  CHN COPE No. 18 PC  Station No. 78  Testman.  Cope No. 78  Testman.  Cope No. 78  Testman.  Cope No. 78  Testman.  Cope No. 78  Testman.  Cope No. 78  Testman.  Cope No. 78  Testman.  Cope No. 78	SSIMATED ABUNDANCES (%)   Inorganic Material   Biogenous Material   Silt & Sand   Calcareous   Sliceous	Micronodules Zeolilites Shards Clay Yolcanic Porams Mannofossils Pteropods Others Others Others Padiolaria	37 1 55 tr tr 7	1 81 tr 10 tr 7	60 2 15 6 15	tr 48 tr 32 tr tr 20	95 1 tr tr 4													
Ship: CHN Expedition 119 Leg No. 2	Inorga	SECUENT TYPE CAS	l calc ooze tr	highly 1 1	highly calc 36 clay W/pyrite	60 calc ooze tr t	76 volcanic ash tr													

lutite with organic (humus) texture; interbedded with a dark gray silty lutite  $457-461~\rm cm$  microlaminated sapropel Poge 3 of 5 olive gray
intermetiting of above colors common
very silty luttle; luttle becomes less silty as forams
grade from abundant to very few 5 Y 6/1 gray, grades to varying hues of 10 YR 7/3 pale brown Core No. 19 12 minor intermottling between above colors silty to very silty lutite with forams, grading from few to abundant over two cycles CALC 002E  $10\ \rm KR\ 7/1\ light\ gray,\ grades\ to\ 5\ Y\ 5/2\ and\ 4/2\ dark$ 2.5 Y 3/2 very dark grayish brown no moctifing very stilly lutite finely laminated sapropel interbedded with gray calc ooze 5 Y 4/2 olive gray no mottling very silty lutite, grades to laminated silts 5, but distorted no mottling silty lutite, forams increase with depth Detailed Description 2 CALC CLAY
5 Y 3/2 dark olive gray
no mottling Leg 2 10 YR 6/3 pale brown HIGHLY CALC CLAY 5 Y 2.5/2 black no mottling VISUAL CORE DESCRIPTION 529-545 CALC 00ZE CALC OOZE CALC OOZE CALC OOZE 407-416 427-461 461-529 545-572 572-586 Ship Culpin Cruise 119 416-42 Lithologic 

Lithologic <del>իտրարականականակարարակարտրությունակարակարաի</del> CALC GOZE GRADES TO CALC OOZE/DETRITUS 5 % 4/2 olive gray, grades to 6/2 light olive gray, and back to 4/2 very intense, pale mottling becomes siltier at base of unit silty lutte top 5 cm straddle end of core sections and are disturbed 1980 5 Y 3/1 very dark gray, grades to 4/1 dark gray no mottling smoottling sirely lutte interbeded with .5-2 cm 5 Y 3/2 dark olive gray, sapropelic layers; becomes siltier with several fine sand laminae in lowest 15 cm; occasional foram sand lenses and laminations occur in conjunction with sapropelic layers 5, erosional 572-586 (cont.) smooth, slick lutite, except 576-579 foram-rich sapro-pelic layer Page 4 of 5 CALC COZE GRADES TO HIGHLY CALC CLAY macrolaminated unit of 10 YR 7/3 very pale brown, 5 X 6/2, 5/2, 4/2 caltve grays intense, pale mottling silty lutite, forams abundant in two discreet bands HIGHLY CALC CLAY, GRADES TO HIGHLY CALC CLAY/DETRITUS 5 Y 4/2 olive gray scattered medium-sized, dark olive gray mottles (600-656 cm) smooth, sticky lutite, grades smoothly to very silty (656 cm) lutite, to medium sand (675 cm) Core No. 5 Y 3/2 dark olive gray no mottling organic-rich lutite with forams common Detailed Description 5 Y 3/2 dark olive gray scattered, pale mottles silty lutite, grades to fine sand 5, erosional 8 HIGHLY CALC CLAY WITH DETRITUS Leg 2 Sta. HIGHLY CALC CLAY/DETRITUS microlaminated sapropel 565 VISUAL CORE DESCRIPTION 586-600 CALC 00ZE 611 169-009 CHAIN Cruise Lithologic 507 Ship

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1976 Poge 5 of 5 Core No 2 Leg 2 Sto. VISUAL CORE DESCRIPTION 611 Ship CHAIN Cruise

Distance

CALC GOZE
10 YR 6/3 pale brown
no mottling
very silty to silty lutite; forans wary from common to
fee 808-816

Detailed Description

CALC 002E 10 YR 6/3 pale brown flow in end of core 816-833

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 2 of 2

SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

SEDIMENT   Inorganic Miterial   Inorganic   Inorganic Miterial   Inorganic Miterial   Inorganic   Inorganic Miterial   Inorganic   Inorgani	a	Inorga		Tota	Total Core Length	Total Core Leng	£ 5	"	833	1	5			Leg No.	Leg No.	1
Type   SEDIMENT   SEDIMENT   SEDIMENT   STATE   SEDIMENT   STATE   S	a	Inorga		EST	IMATE	ABU	DANCE	(x) S								-
SEDIMENT   SITE & Sand   SEDIMENT   STORE   STORE   STORE   SEDIMENT   STORE	a	Sil	nic M	terial			Bic	Denon	S Mat	erial			,			
SEDIMENT   SEDIMENT	a	-	t Sa	2	•	1	S	reous	-	S	i ce	Sno	_			
highly calc   tr   70 3 18 tr   3 6 768   6 6 649   6 649		grains		Volcanic shands	Clay	Forams							мнняка	LEVEL	SEDIMENT	
calc coze         1         44         5         40         1         8         1         784           highly calc clay         tr         12         46         1         8         16         8322           calc clay         tr         12         45         1         40         2         8         9         1         2         8         9         1         8         1         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         9         1         9         1         9		2	-		70		1	2			-	-	9	768	highly calc clay	
highly calc clay   tr   12   45   1   40   2   2   45   1   40   2   2   45   1   40   2   2   45   1   40   2   2   45   1   40   2   2   45   1   40   2   2   45   1   40   2   2   45   45   1   40   45   45   45   45   45   45   45		1			-		_	_					-1	784	calc ooze	
calc ooze         tr         12         45         1         40         2           calc clay         tr         tr         tr         60         tr         24         15         1           calc clay with calc clay with pyrite         r         83         r         6         8         3           calc clay with calc clay with calc clay         r         60         4         9         1         tr         2           calc ooze         tr         66         1         18         tr         15         r           namno ooze         tr         66         1         18         tr         1         r           calc ooze         tr         30         11         43         1         tr         9         6           calc ooze         tr         50         4         37         tr         5         4           highly calc         tr         50         4         37         tr         5         4           calc ooze         tr         50         4         10         7         3           calc ooze         tr         50         4         10         7         4				70	80		- 80			4				832	calc ooze	
calc coze         tr         tr         fr         60         tr         24         15           calc clay with pyrite         tr         83         tr         6         8         8           calc clay with pyrite         tr         70         2         11         tr         2           calc coze         tr         60         4         9         1         20           highly calc clay         r         66         1         18         tr         15           name coze         tr         30         11         43         1         tr         9           calc coze         tr         30         11         43         1         tr         9           calc ocze         tr         30         11         43         1         tr         9           calc ocze         tr         30         4         37         tr         9           calc ocze         tr         30         4         30         7         7           calc ocze         tr         30         4         10         7         7           calc ocze         tr         30         4         10         7 <td></td> <td>1</td> <td>7</td> <td></td> <td></td> <td></td> <td>04</td> <td></td> <td>,,</td> <td>-</td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td></td>		1	7				04		,,	-	-	-				
calc clay         tr         83         tr         6         8           calc clay with pyrite         70         2         11         tr         2           calc clay with calc clay         4         60         4         9         1         20           calc coze         tr         66         1         18         tr         15           highly calc clay         71         5         10         2         3         tr/1           calc coze         tr         30         11         43         1         tr         9           calc coze         tr         50         4         37         tr         5           highly calc         clay detritus         40         36         4         10         7           calc ocze         tr         36         4         10         7         7           calc ocze         tr         36         4         10         7         7           calc ocze         tr         28         2         20         20         20           calc ocze         tr         28         2         20         20         20		+	_			-	54	+	-	5	+	-	-			
calc clay with         70         2         11         tr         2           calc ooze         4         60         4         9         1         20           calc ooze         tr         66         1         18         tr         15           highly         nanno ooze         18         5         10         2         3         tr/1           calc ooze         tr         30         11         43         1         tr         9           calc ooze         tr         50         4         37         tr         5           clay/detritus         40         36         4         10         7         7           clay/detritus         30         28         2         20         20           detritus         (cont.)         28         2         20         20		11	_		83	-	9			_	-		3			
calc ooze			-		70		11		-		-		51			
calc coze         tr         66         1         18         tr         15           highly calc clay         71         5         10         2         3         tr/1           name coze         tr         30         11         43         1         tr         9           calc coze         tr         30         11         43         1         tr         9           highly calc         tr         50         4         37         tr         5           clay/deritus         40         36         4         10         7         7           clay/deritus         30         28         2         20         20           cont.)         (cont.)         20         20         20		7	-		-	1	1	_	-	0	-	-	7			
highly		11			99		-	5		5			5			
namo coze         IR         5         75         1         1           calc coze         tr         30         11         43         1         tr         9           calc coze         tr         50         4         37         tr         5           highly calc         40         36         4         10         7           calc oderfius         40         36         4         10         7           detritus         30         28         2         20         20           (cont.)         40         40         20         20					-		01	+		-	-	11,	80			
calc coze tr 30 11 43 1 tr 9  calc coze tr 50 4 37 tr 5  highly calc clayderitus 40 36 4 10 7  calc coze deritus 30 28 2 20 20  (cont.)			-				-	-	+	-	-	-				
Calc coze tr 50 4 37 tr 5 highly calc calc calc ozer 40 36 4 10 7 calc ozer calc cace 30 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		13	+		30	1	-	+		-	-	-	9			
highly calc clay/deritius 40 36 4 10 7 calc coze/ 30 28 2 20 20 (cont.)		ţ			50	4	_	1		-	-		4			
calcoze/ deritus 30 28 2 20 (cont.)		07	_				10	-			-		3			
(cont.)		30			28		20			0	-					
			-					-	-	-	-					

Spondes

Diatoms Others

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5 5

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15 2 #

13 22

47 6 45 63

Redioleria

Discoasters

sffssofonnsN Forams

Clay Volcanic

Zeolites Micronodules Detrital grains

pteropods

Biogenous Material
Calcareous

Inorganic Material Silt & Sand

ESTIMATED ABUNDANCES (%)

5

833

Total Core Length Station No. 80

19 PC

Core No.

Page / of /

Total Length 100 cm. Cruise 119 Leg 2 Sta 80 Core No 19 Pa Core condition Exercer Date November 12 Total Date Nove Core condition Extruent Date Described 12 Tan 16 by T Finance Physiographic location Isis Ryce Conflex, Nile Conf. East MED SEA

Detailed Description Lithologic 1 Newstreme 7

0-14
CALC OUZE
10 YR 6/4 Light yellowish brown
no mottling
silty lutite with scattered forans and pteropod 101 · H · H · ·

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HICHLY CALC CLAY WITH MN MICRONODULES 5 YR 4/4 reddish brown to 3/4 dark reddish brown

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Perture soften of core

no mottling silty lutite, forams are common very fine laminae of pale yellow brown

HIGHLY CALC CLAY 5 Y 3/2 dark olive gray very small, pale brown mottles are common silty lutite with scattered forams sapropel

CALC OOZE 27-70

2.5 T 5/2 grayish brown, grades to various hues of pale brown 10 YR 6/3 small, pale brown mottles scattered through top 10 cm; small grayish mottles scattered through pale browns 5119; luttle with scattered to common forams 55.60 cm volcanic ash sharp but mottled contact

HIGHLY CALC CLAY

smooth, slick lutite, becomes very silty lutite 77-80 cm 10 YR 4/3 dark brown small, pale brown mottles from above, decrease with depth

80-101

CALC GOZE

10 YR 6/3 various hues of pale brown
no motiling
silty lutte, with scattered to common forams
91-92 cm volcanic ash
end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Station No. 80 Core No. CHAIN Expedition 119 Ship:

19 PG

101 Total Core Length

Leg No.

			пимини			2				
		15	Spondes							
-		Siliceous	eirefoibe#							
	٦	Sil	2mote i d							
	ateri		Others	6	3	3	10	2		
€ ×	Biogenous Material	Sn	Discoasters							
ES (	ogen	Calcareous	pteropods							
ESTIMATED ABUNDANCES (*)	8	Cal	sfissotonneN	99	21	16	15	87		
D ABU			2m6107	2	-	7	ţ	_		
IMATE			CJay	22	09	70	72	45		
EST	erial	Silt & Sand	Volcanic							Ħ
	c Mat	& San	Zeolites							
	gani	11t	Micronodules	-	15					
	Inor		Detrital grains	tr	13	5	3	-		
			SEDIMENT TYPE	calc ooze	highly calc	highly calc clay	highly calc clay	calc ooze		
			LEVEL	_ 0	18 c	22 c	76 c	66		

Ship CAMAY Cruise 1/9 Leg 2 Sta. 82 Core No. 20 PC. Total Length 890 cm. Lat. 33 13.885 'A Long. 31 30.0' C Depth 2013 car. 0 Date Described 19 Jan 76 by T Farmer Physiographic location Isis Ridge Commex, Nile Cove, East, Med. SEA Core condition Excelley Ship CHAIN Lithologic

Detailed Description

サイナナナ

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10 YR 6/3 and 5/3 pale brown and brown scattered intermottling of above colors; occasional dark gray-brown, Ma-rich mottles also appear moists, silty lutite, forems are scattered throughout 7-8 cm, 10 YR 4/2 dark, grayish brown volcanic ash 0-156 CALC 00ZE

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3 1 5 Y 3/2 dark olive grant rikits
abundant, small, pale mottles, microlaminated
tariny firm, slightly silty lutite; forams scattered
throughout
sapropel

171-209 

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HIGHLY CALC CLAY, GRADES TO CALC COZE

10 YR 4/1 dark gray, grades to 5/2 dark grayish brown,
6/3 pale brown, and back to 5/2
intermotiting of above colors is scattered throughout
slickish lutte, becomes silty in middle of unit, then
slightly silty towards bottom; scattered forams

16.

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throughout

CALC 002E
5 Y 3/2 dark olive gray
small, pale mottles are common; several larger mottles
from above also appear microlaminated
slightly silty, fairly firm lutite, with scattered

11:4

300

HIGHLY CALC CLAY
10 YR 5/2 grayfsh brown
small, pale mottles are common, but somewhat clustered
slightly silty lutite with occasional forams 215-226

microlaminated just saley lutite with occasional forams sapropel CALC OOZE 5 Y 3/2 dark olive gray 1

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VISUAL CORE DESCRIPTION

Page 2 of 4

Core No. 20 Pc 82 Leg 2 Sto. Cruise //9 Ship CHAM

Lithologic

Detailed Description

	237-279  HIGHLY CALC CLAY GRADES TO CALC OOZE  10 YR 5/2 grayish brown, grades to 6/3 pale brown, and minor amounts of very pale brown mottling of darker brown is abundant in lighter colors fairly silty lutite throughout 279-315 CALC OOZE	5 Y 3/2 dark olive gray innumerable, small, pale mottles in top 7 cm; alterna- fining light and dark microlaminations throughout humus-like, organic lutite; forams scattered throughout sapropel  Sapropel Sapropel Sapropel	10 YK 4/1 dark gray no mottling slightly silty lutite interbedded with silt laminae S 325-341 CALC 002E S Y 7/1 light gray several large, gray mottles from above at ton	stic- hroug C 002 YR 7/ y, me	39-414 CALC OOZE 10 YR 7/3 very pale brown subdued mortling is scattered in lower portions very slty lutite, somewhat compacted; becomes very firm (374-384 cm), and back to fairly compact: forans are scattered throughout S 414-438 CALC OOZE 5 Y 4/2 and 3/2 olive gray and dark olive gray	<pre>microlaminated, interbedded, and occasional mottling with above unit in top 10 cm extremely silty lutite with very abundant forams, less silty in darker colors sapropel S</pre>
601	1 1 11 16 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	1 1 1 1 1 1 2 1 1 1 1 1 1 2 1 1 1 1 3 1 1 1 1 3 1		
	82 	<i>2</i>	60	% %	Physicae 900	imilmilm.

Page 3 of 4

20 86 Core No. 7 697 2 Ship CH4IN Cruise

Lithologic

Detailed Description

firm, silty lutite, becomes somewhat less silty with 438-490
HIGHLY CALC CLAY GRADES TO CALC 002E
HIGHLY CALC CLAY GRADES TO CALC 002E
10 YR 6/2 Light brownish gray and 2.5 Y 5/2 grayish
browns appear as gradational bands
browns appear as gradational bands. small, pale mottles are common in the darker bands, while larger mottling between above colors is scattered

HIGHLY CALC CLAY

5 Y 3/2 dark olive gray microlaminated sapropelic material organic, humus-like lutite with scattered forams, broken occasionally by firm, smooth, lutite lamina-

538-556

silty lutite, becomes very silty as forams increase CALC OOSE 10 YR 6/2 light brownish gray, grades to 2.5 Y light brownish gray minor mottling

with depth

<del>արարությունակությունակությունակությունակությունակություն</del>

CALC OOZE

5 Y 3/2 dark olive gray innumerable, small, pale mottles slightly silty, sapropel-like lutite interrupted by smooth lutite sapropel

566-573

CALC OOZE

homogeneous throughout slightly silty lutite with scattered forams G, mottled contact 5 Y 4/2 olive gray

CALC OOZE

5 Y 3/2 dark olive gray alternately light and dark microlaminae; several large mottles present in top portion silty, humas-like lutite broken in middle by smooth

lutite (2 cm)

VISUAL CORE DESCRIPTION

Cruise

Ship CHAN

2 Sta Leg &

20 86

Page 4 of 4

Core No. :

Lithologic

Detailed Description

5 Y 5/2 olive gray, grades to 2.5 Y 6/2 varying hues of light brownlsh gray small mottles are common in the paler colors in the middle of the unit silty lutite; forams are common CALC OOZE

 $5~\mathrm{Y}~3/2$  dark olive gray intense, pale mottling in upper  $7~\mathrm{cm}$  of sapropel silty, humus-like lutite, forams are common CALC OOZE

648-661

CALC OOZE 5 Y 5/2 olive gray grades to 10 YR 5/2 grayish brown monttling noncouting. It is morth, silty lutite with few forams 6, mottled contact

691-199

CALC OOZE

2.5 Y 5/2 varying hues of grayish brown appear in gradational bands with 10 YR 6/3 various hues of pale silty to slightly silty lutite, forams are scattered intermottling of above colors is generally abundant prom

769-773

to common throughout

<del>իսորակարարակարարարարարարարարարարարարաի</del>

5 Y 3/2 dark olive gray small, pale mottles are common slightly silty lutite with scattered forams CALC OOZE

773-806

5 Y 5/2 olive gray grades to 2.5 Y 5/2 grayish brown mottling of above colors is scattered slightly silty lutite, becomes fairly smooth as forams decrease with depth CALC OOZE

806-890

2.5 Y 5/2 various hues of grayish brown appear in gradational bands with 10 YR 6/3 pale browns mottling is generally scarce except near top; several clive yellowish discolorations also appear 749-754 cm silty to slightly silty lutite, forams are few to scattered end of core CALC OOZE

Page / of /

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Cruise 119 Leg 2 Sto 22 Core No 20 PE  Cm. Lat 33 13 135 M Long 2 300 E Depth 2012 corr m  Frequent  Date Described 19 Jan 24 by Tracmet  ation Issue Ribbe Complex, Nice Gong, East, Med. Sea			- 0-15	LO YR 6/4 light yellowish brown	dark gray mottling common in lower 5 cm silty lutite with scattered forams	15-20 CALC COZE 5 YR 3/4 dark reddish brown	very fine microlaminae, alternately light and dark silty lutite with scattered forams 20-35 CALC GOZE	5 Y 3/2 dark olive gray innumerable, small, pale mottles	silty lutite, forams and pteropods are common G	35-69 CALC 002E	10 YR 4/2 dark grayish brown, grades to 6/3 pale brown numerous mottles from above extend into top 10 cm;	also, scattered intermottling of above colors moist, silty lutite, forams increase with depth	end of core												
Ship <u>6.8404</u> Cruise Total Length <u>6.9</u> cm. Core condition <u>Excerter</u> Physiographic location <u>Tsste</u>	Lithologic	1	4 6	10	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Marketon of care 69	mmi	· · · · ·	1111	·I'		1111	ļ. r	1111	.11.		<b>,</b> , , , ,	ч				.,,,		,,,,,	1111
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					Sn		səbuods																	-	
			E		Siliceous	6	inslotbsA						-	4	-				+	-	-	+	-	+	$\dashv$
			E		rial		Diatoms						-	1	_					-	+	4	-	4	-
					Material		Others	13	6	5	2	4	00	17	23	5	12	-	3	2	5	4	7	+	_
s	,	1	890	3	S	SJ	Discoaste							1	_				-	-	_	-	1	-	-
CORE	SC		1	ESTIMATED ABUNDANCES (%)	Biogenous		Pteropods						-	+	9	2	7	Ħ	-	4	Ħ	+	-	-	-
HEN	20 PC	87	ength	BUNDA	S	sti	ssofonnsN	40	3	30	21	21	30	-	45	32	15	19	33	29	33	70	28	-	_
SED.	1	€.	Total Core Length	ED A	-		Forams	-	. 5	1	2	b	2	ä	9	3	ä		80	1	t t	-	-	-	-
.0.1	Core No.	Station No.	20 [8]	TIM			Clay	45	9	75	57	70	57	74	22	53	65	77	20	67	09	25	33		
3	S	Sta	Tot	ES	erial	spa	otnsofoV sent		84						-										
ONS					San		2eolites																		
CRIPT					Inorganic Material Silt & Sand		Micronodu	3		30					Ħ						ţ		T.		
S DES	1				Ino	suj	Setrital grai	-	-	H		2	2	80		3	2		-	11	2	1	1		
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES	CHAIN	Expedition 119	22			SEDIMENT	TYPE.	calc ooze	volcanic ash		highly calc		calc ooze	1	calc ooze		highly calc clay		calc ooze	calc ooze	calc ooze	calc ooze	calc ooze		
	Sh1p:	Exped	Leg No.			2		1	00	73	165	240	275	320	381	436	453		409	651	720	816	889		

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 20 PG

CHAIN

Ship:

#### VISUAL CORE DESCRIPTION

Page 1 of 1

Ship CHAIN Cruise 119 Leg II. Sta. 63 Core No. 21PC.
Total Length 911 cm. Lat. 30° 34 871N Long 31° 15.74° Depth 15.29 m. serv.
Core candition Excellent Date Date Described 20 m. 16 bm. 16 between Physiographic location Centern Nice cone. Engigen Neptlemental

Detailed Description 1111 Lithologic 00 Pleistucne

0-286
CALC GOZE GRADES TO HIGHLY CALC CLAY TO CALL GOZE
10 YR 5/2 grayish brown grades to 4/2 dark grayish brown
and back to 5/2 grayish brown
a few irregular yellowish brown bands scattered throughout; also a bit of slight, faint intermottling of the
two major colors compact, slick lutite with a few forams scattered throughout 131

10 YR 6/3 pale brown slight faint grayish-brown mottling compact, smooth lutite with scattered forans CALC OOZE 312-392 1

286-312

abundant, tiny, very pale brown mottles and flecks stiffer, more compact lutite with scattered white ptero-pod fragments and forams CALC 002E  $2.5~\mathrm{Y}~5.2~\mathrm{grayish}$  brown grades to  $3/2~\mathrm{very}$  dark grayish brown

HIGHLY CALC CLAY
10 YR 4/2 dark grayish brown grades to 6/3 pale brown
to 5/2 grayish brown
common intermottling of the colors above in transi-392-477 1877 1 1

firm, compact lutite with scattered forams tional zones

1

477-582
GALC GOZE GRADES TO CALC CLAY
2.5 Y 4/2 grayish brown grades to 3/2 very dark
grayish brown
abundant, tiny, pale brown mottles and flecks 477-510
firm, compact lutte with common forams, preropods,
and lithified cale fragments
S, ery horizontal

CALC OOZE

slight, irregular, very pale brown mottling and marbling 2.5 Y 7/2 Light gray

0

stiff, compact, foram-rich lutite with lithified lumps and cemented fragments in the zone 286-88 cm.

void 610-615 cm. G, mottled

200

10 10 10 1 1 1 1 141 4s | 1 10 1 1 1 101 91 1 + 1 8 100 607 00 sabuods Biggenous Material
Calcareous Siliceous Radiolaria E 2mots iQ Ofhers 69 Discossiers ESTIMATED ABUNDANCES (%) Pteropods tr Total Core Length \_ 21122010nnsN 20 36 35 28 Station No. 82 Forams 49 3 60 3 55 2 41 Clay Spaeds Inorganic Material Silt & Sand Sections Micronodules 6 Detrital grains tr Expedition 119 SEDIMENT TYPE calc ooze calc coze calc ooze calc ooze Leg No. LEVEL

97 26 04

Page 2 of 2 Core No. Leg I Sta VISUAL CORE DESCRIPTION -Cruise Ship CHAIN

5 Y 4/2 olive gray incense, well-preserved light olive gray and olive mottling and burrowing 626-643, followed by a zone of innumerable microlaminas; generally olive gray hues with some very dark gray and black firm, compact lutite with abundant forams and lithified calcareous fragments 5 Y 6/2 light olive gray grades to 5/2 olive gray very fine, light gray mottling abundant at unit basal contact Detailed Description HIGHLY CALC CLAY S, horizontal 662-716 CALC OOZE 626-662 111011011 1010 111 11 Lithologic 1 100 7

firm, compact, plastic-like lutite with abundant forams 716-911

FIGHLY CALC CLAY WITH LAMINATIONS OF DETRITUS GRADES
TO SLIGHTLY CALC CLAY WITH LAMINATIONS OF DETRITUS
S Y 3/2 dark clives gray
thick and thin laminations abundant 850-911 cm.; also
some foram-rich grayish-brown mottling 716-730 cm.
firm, slightly sitty luttice with a number of varied
textures of lamination; some very silty, others
stiffly lithified and a few sapropel-like calc rich
a bit of coring disturbance is evident in shearing of
end of core

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

sabuods Biogenous Material Radiolaria E Smotsid others 911 Discoasters ESTIMATED ABUNDANCES (%) Calcareous # tr tr # pteropods 21 PC 04 20 1 20 Total Core Length 15 45 22 25 10 09 58 35 2 21122010nnsN Station No. 83 1 H H 9 œ Core No. Clay 43 71 25 19 04 89 13 29 77 84 21 10 84 Volcanic shards Inorganic Material Silt & Sand tr tr setifoez t, tr tr t T. 7 1 Micronodules Detrital grains CHAIN Expedition 119 SEDIMENT calc ooze highly calc ooze calc ooze highly calc clay highly highly calc clay slightly calc clay H calc ooze calc ooze cale clay calc clay cale clay calc ooze calc ooze TYPE detritus highly Leg No. Ship: LEVEL 150 250 300 607 500 581 583 650 750 850 868 910 53

Page 1 of 1

Ship CMMM Cruise III Leg II Sta. \$5 Core No. 21 fg.

Total Length 66 cm. Lat 35 54417 Long 3116 ME Depth 1529 MiLMY.

Core condition Excellent Date Described 21 16 by 3 Gardel.

Physiographic location CEMIENLE UNE. EMSTERN MEDITEREM MEDITER AND 1. Ship CHAN Cruis Lithologic

10 YR 4/4 dark yellowish brown innumerable fine micro laminae found throughout smooth, slick lutite with a few scattered forams 5, inclined 10° CALC OGZE
10 YR 6/4 light yellowish brown
common very pale brown and dark brown mottling
slightly silty lutite with scattered forans Detailed Description S 24-26 CALC 00ZE 

PRINCE

CALC GOZE WITH Mn MICROMODULES 5 Y 372 dark olive gray intense, very fine light gray mottling and flecks 26-50 cm moist, smooth lutite with scattered forams in the mottling zone end of core

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## SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

21 PG 83 Station No. Core No. CHAIN Expedition 115 Ship:

EO I Total Core Length 66

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Leg No.

		Siliceous	sinslolaria Sponges					
	ام	Silia	Diatoms					
	Biogenous Material		others	9	2		2	
24	ous P	sn	Discoasters					
CES (	iogen	Calcareous	Pteropods	7	4	-	נו	
MDAN	80	S	sffssofonnsN	55	55	45	30	
D AB			Forams	9	00	2	5	
ESTIMATED ABUNDANCES (%)			Clay	26	13	94	3	
EST	Inorganic Material	P	Volcanic sbrands					
	C Mat	Silt & Sand	Zeolites					
	rgani	Silt	Micronodules	Ħ	15	_	b	
	Ino		Detrital grains	6	1	2	2	
			SEDIMENT	calc ooze	calc ooze w/Mm micronodules	calc ooze	calc ooze	
			LEVEL	1	25	07	59	

Page / of /

Physiographic location Continued at Shelf due North of Coice, Egypt . Estica Mid Ship CMAIN Cruise //9 Leg 2 Sto. 87 Core No. 4 GC.
Total Length 70 cm. Lat 3/2 44.0 N Long 3/2 622 E Depth 36 cm. R.
Core condition can leaf and Date Described 8 spt 115 by A Ferner

Lithologic

Persone

Detailed Description

10 YR 3/2 very dark gray-brown very coarse silt at top, grades into next unit; a few bioclastic grains CALC CLAY/DETRITUS 9 122 - 121 - 121 1 51.7 .

Mastrone

HIGHLY CALC CLAY/DETRITUS
5 Y 37 Z dark olive gray
slightly slity lutte; fewer bioclastic grains than
above unit, except lower 10 cm, shells are more common as grades into lower unit
large, irregularly-shaped patch of above color extends
from 4-20

SHELL HASH IN MATRIX OF HIGHLY CALC CLAY/DETRITUS 5 Y 3/2 dark olive gray (lutice fraction) primarily shells (pteropods and others) with small amount of lutite \$ 50-70

HIGHLY CALC CLAY WITH DETRITUS
5 Y 3/2 dark olive gray
firm lutitee
Lutine Latine gray
1-32 slightly lighter colored with common bioclastic
grafus; 5 mm layer at 60 cm with small black spots
and a few bioclastic grains; 53-57 cm very silty
end of core

584

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

E Total Core Length Station No. 87 Core No. Expedition 119 CHN Shfp: Leg No.

			****	Ħ	2	Ħ	Ħ		
		ST	Sponges	11	1	7	Ħ		
		Siliceous	RinslothsA						
	[0	Sil	smo s i d					not	Pu
	ater		snedt0	15	23	30	20	Vere	te,
*	Biggenous Material	Sn	Discoasters					they	s s
ES (	iogen	Calcareous	spoqorasq					cks	rite
MDAN	8	Cal	2112207onnsN	tt	-	1	Ħ	k fle	de de e
D ABL			2m5107	r,	H			blac	rgant
ESTIMATED ABUNDANCES (%)			Clay	20	42	24	50	erons	p e a q
EST	Material	P	Volcanic shards	ä				th nu	appear to be organic detricus
	c Mat	Silt & Sand	zeji fosz					e vil	appe
	Inorganic	Silt	Mi cronodul es					amina	fiab
	Ino		Detrital Salaria	60/	20/	307	15/	*from laminate with numerous black flecks-they were not	identifiab L
			SEDIMENT	calc clay/ detritus	highly calc clay/ detritus	*calc ooze/	highly calc clay with	detritus	
			LEVEL	1	30	09	69		

Page / of /

Ship CANIN Cruise 119 Leg 2 Sta 109 Core No 5 60

Total Length 27 cm. Lat.31. 93.8' M Long 31. 04.15' F Depth 20 car. m

Core condition 1200/1005 Physiographic location Courtyeards SHELF NACTH OF CAIRS ESYPT

Lithologic

Newtone

Detailed Description

CALC CLAY/DETRITUS
10 YR 3/2 very dark gray brown
no mortiling
silt with some intermixed lutite, and a few shell
fragments 0-57
small gastropod at 2 cm
end of core

586

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

5 60 109 Total Core Length Station No. Core No. 119 CHY Expedition Leg No. Ship:

Biogenous Material
Calcareous Siliceous Radiolaria Diatoms 10 10 15 Others Discoasters ESTIMATED ABUNDANCES (%) pteropods sffssofonnsN 1 Forams tr Clay 07 45 65 Volcanic Inorganic Material Silt & Sand tr Zeolites Micronodules 50 20 calc clay/
detritus
calc clay w/
detritus
calc clay/
detritus SEDIMENT TYPE LEYEL 30 96

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Perpetus 97 and of one

Spondes

Page 1 of 4

Lat. 32° 46.0' N Long 31° 53.3' E Depth 1581 com m. Physiographic location GRADEN IN ISS & BEE COMPLEX NILE COME, ENST. MED SEA Date Described 28 Jan 74 by T. Fermer 22 PC 1/5 Core No Leg - Sta. Cruise 119 Core condition ExcellenT ES Total Length 253 Lithologic

Detailed Description Hers Acone

Numerous sheared laminations, highly distorted, inclined contacts, and irregular combinations of units suggest the sediment in this core has been disoriented from its normal stratigraphic position either in the coring, or possibly handling stages 1 1 101 1 1 + 4 1 + 1

10 YR 4/4 dark yellowish brown no mottling silty lutite, scattered forans CALC OOZE + 1

10

HIGHLY CALC CLAY S, irregular 1 +

1

+

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+ + +

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+

 $12-13\ {\rm cm}\ abundant,\ {\rm small},\ {\rm very}\ {\rm dark}\ {\rm brown}\ {\rm mottles};\ 19-21\ {\rm cm}\ {\rm pale}\ {\rm brown}\ {\rm lamination}\ {\rm with}\ {\rm mottles}\ {\rm extending}\ {\rm to}$ grades from 2.5 Y 4/2 dark grayish brown, to 10 YR 2.5 Y 3/2 very dark gray brown common, small, pale brown mottles slightly silty lutite with scattered forams 5/3 brown S, inclined CALC OOZE 707 1 1 + + + + + + + H + +

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silty lutite, somewhat siltier towards bottom, with scattered forams and pteropods 37-41 cm very silty, somewhat compacted layer 5, very distorted and irregular subtle hues of 10 YR 4/2 dark grayish brown and 4/3 CALC OOZE 100 10 10

+

101

300 1

+ +

10 YR 5/3 brown, tends towards pale brown 6/3, then 5/2 and 4/2 grayish browns scattered, subtle, medium mottles 203-222 cm, 257-261 cm slightly silty lutite, becomes smoother with depth; generally few forams, except foram sand lamination at 209 cm, and abundant forams and pteropods from 217-225 cm minor mottling of above colors is scattered throughout slightly slity lutite with few to scattered forams CALC OOZE brown 10-1 + + + + 1 0 1 +

10

1 +

4 +

VISUAL CORE DESCRIPTION

Page 2 of 4

22 PC Core No. 115 Leg 22 Sto. Cruise

Detailed Description Lithologic

medium size covition of above colors are common; however, there is also severe disturbance in this unit, particularly of the dark olive gray firm, slightly silty lutite; pteropods and forams are scattered throughout firm, slightly silty lutite with common pteropods microlaminated sapropel; laminations were all inclined, probably when lower sections were disturbed 10 YR 6/3, 7/3 pale browns a few white mostles appear from 377-389; a dark olive brown mottle at 358 cm and 412 cm. very firm, very silty lutite, forams are scattered to 5 Y 5/2 olive, grades to 4/2 and 3/2 dark olive gray, and back to 4/2 384 cm · 2 cm limestone fragment along core side HIGHLY CALC CLAY
2.5 Y 3/2 very dark grayish brown homogeneous throughout smooth lutite with no forams small, pale mottles common 5 Y 3/2 dark olive gray S, but very disturbed HIGHLY CALC CLAY HIGHLY CALC CLAY S, inclined 352-414 - CALC 002E CALC OOZE common 294-300 767-797 300-352 1 1 1 1 4 F A 44 111 4 4 + 1 + 4 4 4 1 1 + + + 101 4 44 49 4 1 1 1 1 1 19 1 1 1 1 + + + + + + + + + + L'ass

grades from 2.5 Y 6/2 light brownish gray, to 2.5 Y 5/2 dark grayish brown a few, very dark gray mottles are present from 447-461, mottling between primary colors is common from 465-488 firm, grades from silty to slightly silty lutite HIGHLY CALC CLAY i, inclined g Pleispiene bottom of core - 653 1 1 1 100 1 2 +

0001

2.5 Y 3/2 very dark grayish brown 414-427 cm severely marbled with paler colors firm, very silty lutite (sapropelic), with abundant forams 428-439, interrupted by slightly silty (elive gray 5 Y 4/2) lutite 439-442 cm

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18

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10 10

several large, burrow-like olive mottles appear from 520-545 cm; however, a severaly distorted lamination (?) also suggests corfing disturbance interbedded, item sapropel (humse-like lutite) and very smooth lutite; forams are few to scattered in the CALC DOZE

10 YR 4/2 dark grayish brown, grades to 5/2 grayish
brown, and back to 4/2
abundant mottling of darker brown occurs in lighter colors; 2 large burrows appear at 60 cm and one at 690 cm
slightly silry lutte with few forams

G 5 Y 3/2 dark olive gray and 10 YR 3/2 very dark grayish brown alternate light and dark microlaminations in sapropels S, but sharply distorted 5 Y 6/2 light olive gray three large, dark olive gray mottles appear in middle; subtle, very small mottles are common throughout subtle, very small mottles are common throughout Silightly silty lutite with scattered for 5 Y 3/2 dark olive gray numerous, small, pale mottles in top 12 cm; also, sev-eral large burrows are present silty, humus-like lutite, with forams and pteropods 5 Y 4/2 varying hues of olive scattered, pale mottling from above, also an olive mottle is present at 510 cm fairly smooth lutite with scattered forams abundant, small, pale mottles fairly smooth lutite, with few forams Detailed Description S, but shows en echelon faulting HIGHLY CALC CLAY 5 Y 3/2 dark olive gray HIGHLY CALC CLAY HIGHLY CALC CLAY HIGHLY CALC CLAY sapropels CALC DOZE 165-885 491-512 557-577 Lithologic <del>լարովագավարականակարակակակակակակակակակա</del>

5 Y 5/3 olive small, rusty, olive-yellow mottles are scattered from this unit into top of lower unit fairly smooth lutite 5, distorted 755-867 HIGHLY CALC CLAY 5 Y 3/2 dark olive gray several large, pale olive mottles and laminations are varying hues of 5 Y 5/2 olive gray and 5/3 olive small and large mottles of above colors are common; sheared and folded laminations indicate disturbance Page 4 of 4 22.00 during coring somewhat sticky, slightly silty lutite, few forans S, inclined 70° smooth, slightly silty lutite, forems occasionally concentrated end of core dark olive gray mottles cluster at various points throughout unit 5 Y 4/2 olive gray grades to 5/2 (olive gray) and back to 4/2 " Core No slightly silty lutite, forams are common S, distorted Detailed Description Leg 2 Sta VISUAL CORE DESCRIPTION present CALC OOZE CALC 00ZE Cruise 119 867-890 890-953 Lithologic Ship CARIN

2210

Core No.

\$11

Leg F Sta

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Cruise

CHOIN

Ship

Page 3 of 4

VISUAL CORE DESCRIPTION

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Page / of /

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Ship Chaix Cruise 1/9 Leg 2 Sto 1/5 Core No 22 PS Total Length 1/3 cm. Lat. 32° 4/6.0 N Long 2° 52.3 © Depth 59' care. Core condition Except NY Teams Described 22 242 N Teams Described 22 242 N Teams Described 22 242 N Teams Described 22 26.0 N Teams	Detailed Description	1 1 1	1 1	0	monogeneous tironghout	CALC OOZE  O YR 5/4 yellowish brown  10 YR 5/4 yellowish brown  10 YR 5/4 yellowish brown  10 YR 5/4 yellowish brown  increases with depth  silty lutite, forems common, pteropods common at contact with upper unit  c, and heavily mottled	12-22 CALC 002E 10 WR 4/4 dark vellowish brown	heavily mottled with above unit	COMBON S	22-50 HIGHLY CALC CLAV	5 William State of the gray formerships saveral larce cravities	brown burrows in top 15 cm slick, slightly silty lutite with forams and pteropods	common	S0-113	10 YR 4/2 dark grayish brown, tends toward 5/2 with depth	societies intermediating of above cours slick, slightly suiting with sector forans and references the state of persons on order of the state of persons on the state of the st	end of core							
		0	Masmore			Peistucne		1		,		1	.,	1		1		,.			. ,	1		1
					-	пъкт		-			ä	5	-	2		m		-	1	-	~	-	1	7
					sno	Sponge				-			-					-	-		-	-	-	-
			E		Siliceous	Radiolaria							-				2	-	-	-	+	-	-	-
			1		Si	Diatoms													-		1	-		
			1		Material	others	4	4	7	2	4	2	70	2	2			~	4	4	4	6		
		1	953	2	S	Discoasters																		
CORES			6	CES (	Biogenous	Pteropods	٤	Ħ		Ħ	Ħ	Ħ	7	Ħ	1	ä	ä				2			
SEDIMENT CORES	22 PC	3	igth	D ABUNDANCES (%)	S	sitzzotonneN	4	38	22	35	21	15	38	25	25	26	26	30	09	20	23	28		
SEDI			e Ler	D ABL		Forams	2	-	Ħ	נ	2	ij	80	10	13	-	Ħ	5	3	3	-	5		
	No.	Station No.	Total Core Length	ESTIMATE		VEID	47	99	65	79	69	83	35	19	72	70	70	99	39	43	12	89		
3	Core No.	Stat	Tota	EST	rial	Volcanic		Ħ			1	į.	1			5					T			
. S¥					Sand	zeolites							+					1	1		1	+		
IPTIC					anic It &	Micronodules	3	5		-	1		+	_	2		5	1	2	-	+	5	+	1
DESCR	1				Inorganic Material Silt & Sand	Detrital grains	1						+		-			1	+	-	+	+	1	-
710		1				[6417190]	#	-	9	-		13	~	77	7		2		2	2		-		
SMEAR SLIDE DESCRIPTIONS - M.H.O.I.	CHN	Expedition 119	2 2			SEDIMENT	calc ooze	calc ooze	highly calc clay	calc ooze	highly calc clay	highly calc clay	calc ooze	calc ooze	highly calc clay	highly calc clay	highly calc clay	calc ooze	calc ooze	calc ooze	highly calc clay	calc ooze		
	Shfp:	Exped	Leg No.			LEYEL	-	06	152	245	306	338	367	433	465	546	615	069	152	842	880	952		

Ship:

Leg No.

LEYEL

### VISUAL CORE DESCRIPTION

Page 1 of 2

10 YR 6/3 pale brown itregular, 18th offer offer brown mottling 13-18 cm, 51-56 cm fregular, 18th offer brown with traces of forams: mosts, very slightly silty lutite with traces of forams: a fine zone of pteropod/shell fragments is found at 5 Y 3/2 dark olive gray inc. light gray mottles and flecks innumerable, very fine, light gray mottles and flecks dightly stuly foram/preropod-rich, sapropel-like luttle distinct, light gray band, I cm wide, at unit basal Ship CHAIN Cruise (19 Leg II Sto. 116 Core No. 23PC.
Total Length 322 cm. Lat. 33' 38'5" Long 31'92.6" Depth 2142 m.orr.
Core condition EXIELLENT Date Described 26 pm. 16 by Gradu.
Physiographic location ISIS RIDGE COMPREY, NILE CONE. EMETERN NED. dark gray yellowish brown and 5 Y 3/2 very tregular mixing of the two colors above moist, smooth lutite with an irregular ashy inclusion at unit basal contact entire unit disturbed, compacted, and disoriented 3.5 irregular stiffer, more compact, mearly mulch-like, foram-rich lutite with a few scattered, white, lithified calcar-5 Y 3/2 very dark olive gray fine (1 mm), inclined, olive and olive gray microlami-nae throughout: also a bit of pale olive mottling common, 83-88 cm 5 Y 6/2 light olive gray slight, faint, white marbling and mottling throughout firmer, more compact lutite with scattered forams and small lithified, white, calcareous lumps S. inclined 5° inclined 5° 131 sapropel zone: coring disturbance evident 124-131 cm very S, irregular Core No 23PL CaLC OOZE 10 Yellowish brown and 5 Y  $3/2\ \mathrm{very}$  10 YR 6/4 light yellowish brown and 5 Y  $3/2\ \mathrm{very}$ Detailed Description HIGHLY CALC CLAY WITH PYRITE 2.5 Y N 7/ light gray very S, horizontal eous fragments S, irregular 62-83 no mottling CALC OOZE CALC OOZE CALC OOZE contact 131-134 29-85 0-13 1101101 entofore: 322m 1 373 Lithologic 1 1 3.00 Perstume = արարուրարարա 30 Meistrene sabuods Biogenous Material
Calcareous Bireforbea C Diatoms Others E ESTIMATED ABUNDANCES (%) SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES t 5 tr preropods Total Core Length \_ 22PG 07 17 15 30 sitssofonnsM 27 \* Station No. 115 Forams Core No. 53 07 82 09 99 09 CJSA Volcanic Inorganic Material Sealfloss Micronodules 1 H H 4 Detrital grains 11 H 7 35 mottle calc coze (dark highly 46 area) calc clay CHN SEDIMENT Expedition 119 calc ooze calc ooze calc ooze calc ooze TYPE

(pale

61

Page 2 of 2

23FC Core No. 11 Leg I Sto.

Ship CHAIN Cruise 119 Lithologic Log

Detailed Description

131-134 (cont.)
completely lithified, brittle and fragmented zone of
limestone and cemented lutite
very S, irregular
134-152

5 Y 6/2 light olive gray homogeneous throughout firm, plastic-like lutite with scattered forams very S, horizontal

CALC OOZE

5 Y 4/2 olive gray, grades to 3/2 dark olive gray
several zones of extensive, light olive gray morthing
15-160 cm, 194-203 cm, 226-236 cm, 264-370 cm;
also, two very distinct, light olive gray zones
break up sapropel 128-225 cm, 294-307 cm; some fine
suggestions of laminations are found 183-194 cm
stiff, more compact, foram-rich lutite with extremely
abundant tests in the zones 203-213 cm, 280-283 cm;
smoother lutite is found in the light olive gray bands
end of core

596

## SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

EO 322 23 PC Total Core Length Station No. 116 Core No. CHAIN Expedition 119 Leg No.

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1		ST	Sepunds															
		ceo	Arrefolbea															
	0	Stl	2mo16 tO															
	Biogenous Material	1	0thers	15	10	10	8	81	7	4	3	5						
24	Sno	Sno	Discoasters	Ħ														
CES	ioger	Calcareous	pteropods	ä	7	ä	ä		2	Ħ	4	8						
ESTIMATED ABUNDANCES (#)	9	3	2 f i 2 2 0 1 on n 5 M	45	07	30	10	00	55	30	28	07						
ED AB			2m6:103	11	10	20	12	-	9	2	4	œ						
IMA			Clay	25	31	20	57	10	27	99	67	33						
EST	Inorganic Material	P	Volcanic															
	C Mat	& San	Zeolites															
	gani	Silt.	Micronodules	-	Ħ	Ħ			ä	tt		-						
1	Ino		Detrital grains	3	2	2	2	1	3	2	2	2						
			SEDIMENT TYPE	pale ooze	calc ooze	ralc ooze	highly calc clay w/pyrite	calc ooze	calc ooze	calc ooze	pale ooze	calc ooze						
			LEVEL	-	30	20	100	133	145	220	250	321						
-	-				-		_	-	_	_	-	-	1	-	 	-		-

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Page 1 of 1

Ship CHAIN Cruise 119 Leg 2 Sto. 116 Core No. 2586Total Length 78 cm. Lat. 35 305 N Long. 31-5246 Depth 2142 visiting Core condition EXIELENT Described 24-76 by Forth Physiographic location 1515 Ribus (\*\*MILE towle Existen MED.\*\*) Lithologic

CALC OOZE
10 YR 6/4 light yellowish brown
a bit of faint gray mottling common 8-12 cm
slightly silty lutite with scattered forams
5, horizontal Detailed Description 0-14 

CALC OOZE WITH MA MICROMODULES
10 YR 4/4 dark yellowish brown
innumerable, fine, dark brown microlaminae throughout
smooth lutite with just a few forams
5, horizontal

CALC 002E 5 Y 3/2 dark olive gray intense, tiny, white and light gray mottles and fleeks throughout rapropel zone throughout rapropel zone moist, slick luttee with scattered forams and white shell/pteropod fragments 9 33-70

common, very pale brown mottling 50-64 cm slightly silty lutite with scattered forams and ashy pockets end of core CALC 002E 10 YR 6/3 pale brown, grades to 6/4 light yellowish brown

598

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

23 PG Station No. Core No. CHAIN Expedition 119 Ship:

			вняння			12		
		ST	sabuods					
		Siliceous	Radiolaria					
	(a)	511	Diatoms					
	Material		Оснега	2	t	4	9	
( %	S	1	Discossiers					
CES (	Biogenous	Calcareous	Pteropods	4	ţ	3	2	
ESTIMATED ABUNDANCES (%)	8	Cal	2 f i 2 2 0 7 o n n 6 M	55	35	55	50	
D AB			2m6707	80	6	7	4	
IMAT			СЈЗУ	23	41	18	26	
ESI	Inorganic Material	P	of naps foly sbrands				10	
	c Mat	Silt & Sand	Zeo11tes					
	rgani	Silt	Mi cronodul es	n	15		ħ	
	Ino		Detrital grains	2	2	-	2	
			SEDIMENT TYPE	calc ooze	calc ooze w/Mn micronodules	calc ooze	calc ooze	
			SS	calc	calc	calc	calc	
			LEVEL	1	16	25	69	

	ORE DESCRI
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Page / of 4

Ship CHAIN Cruise 119 Leg 2 Sta 118 Core No 24 PC.

Total Length 711 cm. Lat 33 516 N Long 31 524 E Depth 2636 werm.

Core condition Excellent

Date Described 31 52n 16 by Tracmer

Physiographic location Apyssal, HILLS Jule W. of Etatostaenes Seamment, EMS.

Lithologic

10 YR 6/3 pale brown (2.5 cm) overlies marbled and disturbed area of 2.5 Y 4.4 olive brown and 10 YR 4/2 minor mottling of pale brown into olive brown silty lutite with common biogenous grains (pale brown) overlies a smooth, unconsolidated lutite CALC CLAY

10 YR 4/2 dark grayish brown
homogeneous, except for two silt clasts along side of
core liner, and a few, pale brown marbles indicating
mixing near the top core liner silty lutite with pteropods common (pale brown) over-lies a smooth, slick, unconsolidated lutite CALC OOZE OVERLIES CALC CLAY 10 YR 6/3 pale brown (1 cm) overlies 2.5 Y 4/4 olive minor mottling of pale brown into olive brown; dark grayish brown, silry lutite clast extends along CALC GOZE OVERLIES CALC CLAY 10 YR 6/3 pale brown (1 cm), followed by 2.5 Y 4/4 10 YR 4/2 dark grayish brown homogeneous throughout smooth, slightly silty, unconsolidated lutite smooth, slick, unconsolidated lutite smooth, slick, unconsolidated lutite Detailed Description CALC GOZE OVERLIES CALC CLAY CALC CLAY 10 YR 4/2 dark grayish brown 10 YR 4/2 dark grayish brown homogeneous throughout homogeneous throughout dark grayish brown CALC OOZE/DETRITUS olive brown CALC CLAY brown 70-14 61-70 38-51 0-30 1. 1 1 1 121 144 1 1 1 + 414 1 + 1.1 1 1 10 + 1 11 1 1

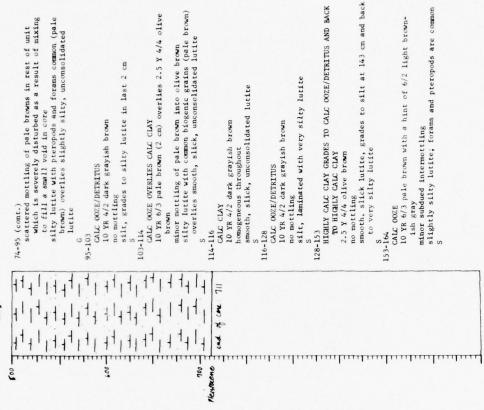
#### VISUAL CORE DESCRIPTION

Page a of 4

Cruise 119 Leg 2 Sta. 118 Core No. 24 PC

Ship CHAIN

# Lithologic Description



24 PC Core No. 18 Leg I Sta 611 Ship CHAIN Cruise

Lithologic

Detailed Description

164-235 HIGHLY CALC CLAY INTEREDDED WITH HIGHLY CALC CLAY 10 YR 4/2 dark grayish brown and 5 Y 3/2 dark olive

gray
the slick lutites are generally homogeneous, excepting
a few, tiny, black mottles 184-194; some of the sapropels show subdued laminations
smooth, slick lutite interbedded with slity, humuslike, sapropelts, Luttes; forams and pteropods are
common in the sapropels; 198-202 cm, silt bed with
gradational contacts
sapropels-175-177 cm, 203 cm, 209-215 cm, 229-235 cm

235-255

10 YR 5/2 grayish brown, grades to 6/3 pale brown intermottling is common silty luttle, forams are common silty luttle, but heavily mottled CALC OOZE

255-275

2.5 Y 4/2 dark grayish brown a scattering of pale brown mottles appear in two HIGHLY CALC CLAY

smooth, slick lutite clusters

CALC COZE GRADES TO HIGHLY CALC CLAY 10 YR 5/3 brown, grades to 2.5 Y 4/2 dark grayish 275-295

few pale mottles silty lutite, with common bioclastic material (2 cm); grades to smooth, slick lutite

295-307

CALC OOZE/DETRITUS 2.5 Y 4/2 dark grayish brown laminated silt no mottling

307-380

10 TR 6/3 pale brown, 5/3 brown, and minor amount of 4/2 dark graytab brown, above colors appear in macrolaminated unit with the darkest color in the middle; intermottling is scattered throughout the palec colors are aily luttes with fairly common forams, while the darker browns tend to be very smooth, or only slightly silty, with few forams 39-323 cm volcanic ash CALC COZE WITH MINOR AMOUNT OF HIGHLY CALC CLAY

VISUAL CORE DESCRIPTION

Core No. Sto. H Leg

6/1

Ship CHAIN Cruise

PC

74

Page 4 of 4

Lithologic

380-386 CALC OOZE/DETRITUS

very, very silty lutite with several distorted, pale, silt laminations

386-711

CALC ONZE (PAIE IMMINITORS), GRADES TO HIGHIY CALC CLAY, AND FINALIX CALC ONZE/DETRITUS

10 YR 5/5 and 4/3 browns, and lesser amounts of 6/3 pate brown, and 4/2 dark grayish brown
these colors appear in repeated cycles of macrolaminations, generally grading from light to dark colors: mortling is scattered here and there throughout, but is never very intense mortling is cattered here and there throughout, but list never very intense and preropods fairly common: the pale browns abundant at top are generally silty lutites with forams and preropods fairly common: the repeated lutter cycles commonly end with a laminated, grayish brown silt; these occur at 490-500, 539-550, 570-576, 580-583, 593-603, 621-624, 633-641, 658-666, 673-677, 699-702
contacts between laminations are generally sharp, although occasionally disturbed: 655-700 cm, 5 X 3/2 dark olive gray sapropel with subtle laminations: 679 on thin bed of shell hash

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NOTE: After comparison with the pilot core, it seems likely that the piston core missed the top 70-75 cm of sediment.

Detailed Description

10 YR 4/2 dark grayish brown no mottling

Cruise //9

Ship CHAIN

Page 1 of

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

					ES	IMATE	98	ESTIMATED ABUNDANCES (%)	ES (	24					
_		Ino	rgani	C Mat	Inorganic Material			8	ogen	ous M	Biogenous Material	9			
			Silt	Silt & Sand	P			Cal	Calcareous	sn		Sili	Siliceous	S	
	SEDIMENT	[atinted entarg	s∍[ubonorɔ iM	2eolítes	Volcanic sbands	CJay	Rorams	2[f280]onn6N	Pteropods	Discoasters	Others	Diatoms	Radiolaria	Sponges	инияны
	cale clay	-				88	ä	6	tr		-				t
-	calc clay	tr				90	Ţ,	7	Ħ		3				
	calc ooze/ detritus	07	tr			2	æ	1	3	Ħ	43	-	tr	Ħ	7
	calc ooze	Ħ				52	-	1	2		-				
	highly calc clay	Ħ	נ			78	Ħ	10	נ	tr	6			ţ	6
	highly calc clay	ij				71	1	15	tr		5				00
	volcanic ash	1			93	2		Ħ			4				
	calc ooze	t,	Ħ			47	-	84	-		6				
	calc ooze	1	Ħ			99	-	26	2	Ħ	3				-
	calc ooze/ detritus	07	tt			2	2	Ħ	7		45				4
	calc ooze	1	11			45	2	38	2	Ħ	12				Ħ
	calc clay	tr				36	tt	4			2				
	calc ooze/ detritus	07	-		£	3	7	-	200	ţ	36				4,
	cale clay	-	2			90	90 tr	4			2				

Physiographic location Azrssal HILLS DUE W. of ERATESTHENES SEAMOUNT E.M.S. 119 Leg 2 Sto. 118 Core No. 34 P6. Date Described 3/ Jan 76 by I Fasmes Detailed Description Total Length 77 cm. Lithologic

10 YR 4/3 brown, grades to 4/2 dark grayish brown 1-5 cm, microlaminated with dark yellow brown (Mn-rich); 10 cm, narrow lamination of pale brown similar to top of next unit smooth, slick, unconsolidated lutite 12-22

OALC OOZE (1 cm) OVERLIES CALC CLAY

OAL OZE (1 cm) OVERLIES CALC CLAY

OAL Spale brown overlies 10 YR 4/3 brown
minor, pale brown mottling in brown; 15-22 cm, microlaminated with dark yellow brown (Mn-1ch)
silty lutite, with common bioclastic material (pale
brown) overlies smooth, slick, unconsolidated lutite 10 YR 6/3 pale brown (1 cm) overlies 5 Y 4/3 olive pale brown mottles are scattered into top of olive silty lutite with forams and pteropods common (pale brown), followed by smooth, slick, unconsolidated lutite 10 YR 4/2 dark grayish brown no mottling smooth, slick, unconsolidated lutite CALC OOZE OVERLIES CALC CLAY 22-34.5 CALC CLAY CALC CLAY 34.5-51 0-12 Mayken Gam of Call 17

CALC GOZE/DETRITUS OVERLIES CALC GOZE
(MAY R6/3 pale brown overlies 2.5 Y 4/4 olive brown very minor, pale mottling at top biogenous silt overlies smooth, slick lutite 10 YR 4/2 dark grayish brown a couple dark gray mottles silt CALC OOZE/DETRITUS S 51-59

10 YR 4/2 dark grayish brown no mottling silt S, but very disturbed CALC OOZE/DETRITUS 69-59

Page 2 of 2

... Leg II. Sta. 118 Core No. 24 P6

605 VISUAL CORE DESCRIPTION Ship CHAIN Cruise 119 Lithologic Log

Detailed Description

69-73
HIGHLY CALC CLAY
5 Y 4/3 olive
homogeneous throughout
smooth, slick lutite

S
73-77
CALC CLAY
10 YR 4/2 dark grayish brown
homogeneous throughout
smooth, slick lutite
end of core

909

## SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

77 24 PG Station No. 118 Total Core Length Core No. CHAIN Expedition 119 Leg No. Ship:

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		ceon	strafotbaA											
	(a)	5111	2 smots to											
	ateri	lcareous Siliceous	0thers	-	4	-	42	6	2					
( e	ous P	Sn	Discoasters					Ħ	Ħ					
CES (	iogen	Calcareous	pteropods				2	Ħ	1					
ESTIMATED ABUNDANCES (%)	80	S	2 [ t 2 20 Tonn 5 M	7	09	2	2	22	12					
D AB			2m6707		2	5	2	ä	Ħ					
IMATE			Clay	90	28	77	10	89	85					
EST	Material	P	Volcanic shards				6							
	c Mat	Silt & Sand	Zeolites											
	rgani	Silt	Micronodules	2	-1	91	-	-						
	Inor		Detrital grains	5	1	1	33	Ħ	1					
			SEDIMENT	cale clay	calc ooze	calc clay w/Mm	calc ooze/ detritus	calc ooze	calc clay					
			LEVEL	1	13	20.3	57	63	76					

Page 1 of 3

Ship CHMN Cruise 119 Leg II Sto. 120 Core No. 25 ft. 120 Core No. 25 ft. McCore Condition Excellent Frank, beta Described 21 mcm. Betatent Physiographic location NWRTH Frank, by EASTS FRENCE SEASONT, EASTERN MED. Core No. 25 PC

Detailed Description

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Lithologic

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NOTE: Remarkably, the top 8 cm of the piston core are a compressed representation of the whole 97 cm of the sediment in the pilot core. Every lithologic feature is preserved in a miniaturized, although sometimes disturbed, fashion. This phenomenon no doubt occurred as a result of poor coordination of piston movement with penetration. In this case the movement was delayed and the piston was immobile as the cutter and lower barrel passed through the upper meter of the sediment. The upper 8 cm, as mentioned above, probably squeezed into the empty core cutter slowly and irregularly as the sediment displaced the water trapped within.

FOR DETAILS OF THIS ZONE AFFLICTED WITH CORING DISTUR-

BANCE SEE PILOT CORE DESCRIPTION 4 4 4 4 4

CALC OOZE 10 YR 6/4 light yellowish brown

at 2 to 01

1

1

1

several zones of common, pale and very pale brown motting 28-32 cm, 100-132 cm; also grayish brown, shadowy zone 65-89 cm, polythy slipp lutite with a few forams and pteropod fragments scattered an interesting cast pteropod test replaced with magnessim cast pteropod cast processing cast pteropod cast processing cast pteropod cast pteropod test replaced with magnessim cast cand at 103 cm.

1

5 Y 3/2 dark olive gray CALC OOZE 1. 131

innumerable, tiny, light gray mottles and flecks throughout sapropel firmer, a bit more compact lutite with scattered forams , horizontal

101

77

1

1

CALC OOZE

11

1/1.

1 +0

2.5 X 5/2 gray1sh brown, grades to 6/2 light brownish gray, to 5 X 6/4 pale olive common interpottling in transitional zone, 148-158 cm moist, smooth lutite with scattered forams and black flecks

S, horizontal

4

13

CALC OOZE

5 Y 3/2 dark olive gray one faint, 2 mm, olive lamination near unit basal

firm lutite with a few pteropods associated with lamination

end of one 48mm

Pleistucae

3

VISUAL CORE DESCRIPTION

Page 2 of 3

Core No. 25 PC 120 Leg I Sta. 611 Cruise Ship CHAIN

Lithologic

Detailed Description

common intermottling in transitional zone, 184-188 cm slightly silty lutite with scattered forams, pteropod fragments, and white, lithified, calcareous lumps 5, horizontal 2.5 Y 5/2 grayish brown, grades to 6/2 light brownish CALC OOZE gray

206-22

5 Y 3/2 dark olive gray fine, light gray laminations and flecks 206-212 cm; imm laminations at 221.5 cm somewhat coarse, mulchy lutite with abundant forams and scattered pteropods CALC OOZE WITH PYRITE

two

S, horizontal sapropel zone

222-293

CALC OOZE WITH A ZONE OF CALC OOZE/ASH 5 Y 7/2 light gray, grades to 7/3 pale yellow a few faint, light gray mottles and burrows scattered

firm, becoming more compact, slightly silty lutite with scattered, white, lithified calc lumps and an ash stiff zone, 267-274 cm throughout

S, mottled

293-318

<del>ւտքակարակակակարակարականակարակարականական</del>

2.5 Y 4/2 dark grayish brown, grades to 5 Y 3/2 dark olive gray CALC OOZE

extensive, grayish brown and olive brown mottling 293-307 cm; finely laminated thereafter somewhat coarse, mulchy lutite with abundant forams and pteropod fragments sapropel zone

S, horizontal 318-348

CALC OOZE

5 Y 6/2 light olive gray, grades to 2.5 Y 6/2 light bromish gray slight intermetaling in transition zone slightly slity lutte with scattered forams

S, irregular

CALC OOZE 348-364

5 Y 3/2 dark olive gray fine, tiny, Hight gray flecks and mottles slightly coarse, mulchy lutite with abundant forams and scattered pteropods

sapropel zone

Page 3 of 3

Leg II Sta 120 Core No 25 PC

VISUAL CORE DESCRIPTION

Detailed Description Ship CHAIN Cruise 119

Lithologic Log

364-394 CALC 002E

S Y 5/2 olive gray, grades to 2.5 Y 6/2 light grayish brown small, common intermettling of above colors throughout firm, silty luite with scattered forams throughout, and a zone of foram/pteropod sand 377-380 cm

394-405

OALC OOZE

5 Y 3/2 dark olive gray mottles 397-400 cm
slightly coarse, malchy lutite with abundant forams
5, horizontal
405-456

CALC OOZE
2.5 Y 5/2 grayish brown, grades to 6/4 light yellowish
brown
common internottling in transitional zone
firm, slightly silty lutite with scattered forams
end of core
NOTE: the cyclic nature of the above combinations of
lithologies should not be overlooked

<del>, այսպատիակավատիակավայականականականականակա</del>

610

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Total Core Length 456 25 PC Station No. 120 Core No. CHAIN Expedition 119 Leg No. Ship:

			1.3		1	ES	THAT	ED AB	ESTIMATED ABUNDANCES (%)	CES (			1		
		- 1	TUO	Silt &	& Sand	Sand			Sal	Calcareous	0	Materia	511	Siliceous	ıs
LEVEL	σ.	SEDIMENT TYPE	Detrital grains	Micronodules	Zeolites	Volcanic sbrands	Clay	2m6107	2 [ i 2 2 0 1 onn 5 V	Pteropods	Discoasters	Others	Diatoms	simeforbea	Sponges
1	calc	calc ooze	3	2			25	9	5.5	2	Ħ	1			
70	calc	calc ooze	2	2			45	67	35			9			
137	calc	calc ooze	2	tr			50	5	36			5			
200	calc	calc ooze	9				54	3	25			15			
215	with	ooze	2	tr			37	12	30			4			
260	calc	calc ooze	-				25	4	65			2			
274	calc	calc ooze/ash	4	tr		30	22	-1	07	tr		6			
355	calc	calc ooze	2				04	5	04	ä		3			
700	calc	ooze	3				44	4	07			2			
455	calc	calc ooze	2	tr			31	9	55	Ħ		9			
	+														
	+														
	+	-													

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Page 1 of 1

Ship CHAIN Cruise 119 Leg II Sta. 120 Core No. 25 Fe.
Total Length 94 cm. Lat 35 Fe. 24 M Long 32 444 W. E. Depth 1927 m. arr.

Core condition Excellent Date Described 28 m. Branch
Physiographic location NoFilt Flance of Ematost Heales seminar Enterin MED.

Detailed Description

Lithologic

0-13 

CALC CORE 10 YR 6/4 light yellowish brown slight yellowish-brown mottling 0-5 cm unconsolidated, slightly silty lutite with scattered

S, irregular
13-14-5
4-15
4-15
4-10 YR 2.5/1 black
homogeneous throughout (slight mixing at upper unit
contact)
slick and silty lutite combined

14.5-21
CALC OXZE WITH Mn MICRONODULES
CALC OXZE WITH Mn WICRONODULES
IN # 4/4 dark yellowish brown
innumerable, fine, dark brown microlaminae throughout
smooth lutte with just a few forans
5, horizontal
21-36

計劃

Heiskene

in - and of war 94 mm.

5 Y 3/2 dark olive gray intenses, tiny, white and light gray mottles and flecks throughout sapropel zone moist, slick lutite with scattered forams CALC OOZE

CALC 002E WITH BED OF CALC 002E/ASH 10 YR 6/2 light brownish gray, grades to 6/4 light yellowish brown

homogeneous throughout salightly silty lutter with scattered forams somewhat graded ash bed 80-83 cm end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

76 25 PG Station No. 130 Total Core Length Core No. CHAIN Expedition 119 Ship: Leg No.

E

			пыммны				10			,		,	,	,	,	,	1	,
		ST	Spondes															
	á	Siliceous	Radiolaria															
	le l	Sil	2mo1si0															
	Material		0thers	7	-	4	œ	9	2	4								
(%			Discoasters															
CES (	Biogenous	Calcareous	Pteropods	Ħ				2	Ħ	ä								
JNDAN	80	Cal	2 [ i 2 2 0 1 on n 5 M	58	10	04	50	20	25	55								
ESTIMATED ABUNDANCES (%)			Forams	7	3	3	7	4	9	4								
IMATE			Clay	23	9	36	23	36	17	36								
EST	Material	P	Volcanic						45									
			Zeolites															
	Inorganic	ilt	Mi cronodul es	3	80	15												
	Inoi		Detrital anisap	2		2	2	2	2	1								
		1 1	SEDIMENT TYPE	calc ooze	Mn micronodules	calc ooze with Mn micronodules	calc ooze	calc ooze	calc ooze/ash	calc ooze								
			LEVEL	1	14	18	26	40	82	93								

Lat. 23" 44.3" M. Long. 32" 46.5" & Depth 816 comm.

Lat. 23" 44.3" M. Long. 32" 46.5" & Depth 816 comm.

Date Described 35 50. 32 by Transe.

A. Cynaus. Enis. Physiographic location Exampreses Total Length - 506 cm. Cruise -Core condition FREELEN Ship CHAIN

Detailed Description Lithologic Parlame

Note: whole core has disturbed appearance indicated by contorted and sheared laminae CALC OOZE 0-1 4 1 + 1 1 1 1 1 0

10 YR 5/3 brown homogeneous throughout very silfy lutite, forams are common S, but disturbed to 1

1

1

1

+

4

10 YR 6/4 light yellowish brown laminated in various hues of above color very silty lutite, forams are generally common, with occasional clustering; small, lithified lump near bottom 5, but disturbed 10 YR 6/3 pale brown no mottling CALC OOZE 0

very, very silty lutite; becomes foram sand from 20-21 cm Contorted laminations (~0.5-4 cm) in varying hues of above colors appear throughout; occasional laminations is of brownish yellow appear in lower portions small, scattered, black mottles (Mr-rich) are present from 68-79 cm and 105-145 cm 22-145 CALC 00ZE

> 9 +

4

+ 1

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+ P

1

generally a very silty lutite, with forams and pteropods common; however, larger laminations of very abundant forams appear 16-48, 58-68, and 93-100
2 om cylindrical piece of coral (?) recovered at 92 cm
5, but heavily mottled
145-158

+ +

+ +

+

1

1

1

+

0

10 YR 7/4 very pale brown heavily black mottles heavily mottled with above unit; small, black mottles (Marich) are also scattered throughout very wilty, compacted, plastic-like lutite; forams are CALC GOZE

1

scattered

+

Newtone

10 YR 6/4 light yellowish brown, and 6/3 pale brown; 7/4 and 7/3 very pale browns become more prominent S, but mottled CALC OOZE 158-348

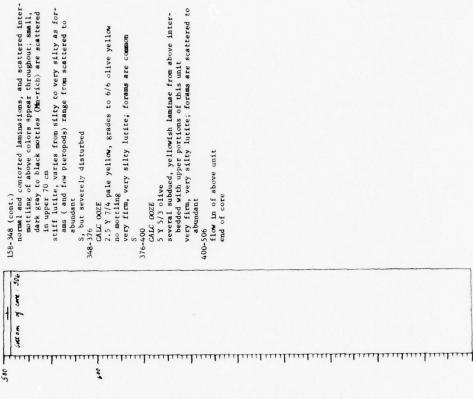
VISUAL CORE DESCRIPTION

Page 2 of

74 PC Core No 121 Leg -2 Sta. 611 Cruise Ship CHAIN

Lithologic L09

Detailed Description



2.5 Y 7/4 pale yellow, grades to 6/6 olive yellow no mottling very firm, very silty lutite; forams are common

VISUAL CORE DESCRIPTION

Page , of

Cruise // Leg 2 Sta /21 Core No 24 PS - 77 cm. Lat 23 443 N Long 32 465 E Depth 898 carms. Date Described 28 Jea 16 by I Falsage Physiographic location Exactorneses Seamount south of Cypaus Core condition ExecutenT Total Length\_ Ship CHRIN

Lithologic Log Perfece =

Detailed Description

- CALL COZE
10 YR 6/3 pale brown
slight, pale mortling in upper portion, and darker
mottling near lower unit
slity lutite with scattered forams
very G 7 101 d 1 1 101 me of one.

1

1

Pentuene

Biogenous Material
Calcareous Siliceous

Inorganic Material Silt & Sand

E

506

26 PC

Core No.

CHAIN

Ship:

Expedition 119

Leg No.

Station No. 121 Total Core Length ESTIMATED ABUNDANCES (%)

100

sabuods

0thers

Radiolaria

Discossters

sfizzotonnsN

Clay

Volcanic Shards

Detrital grains

SEDIMENT

TYPE

LEVEL

Sealfloes Micronodules

pteropods

CALC OOZE

10 YR 4/4 dark yellowish brown innumerable, small, pale mottles silty lutite, forams are common

10 YR 6/3 pale brown 47-50 cm extremely intense, grayish brown (10 YR 5/2) mottling; some subtle marbling of paler hues indicates disturbed area in this unit silty lutite, forams are common CALC OOZE

50-77

CALC OOZE

10 YR 7/3 very pale brown, grades to 6/3 pale brown
scattered intermottling of pale browns
very silty, plastic-like lutite, becomes somewhat less
silty with depth
end of core

7

t 7

25

tr 7 1

3 28 38

40 Lr

# 7

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in micronodules calc ooze w/

calc ooze

calc ooze calc ooze calc ooze

99 54

24 44

65 5

20

5 1

calc ooze

calc ooze

28 20

89

tr

calc ooze

83 22

155 173 215 308 373 205

1 7

56

89

t,

20

94

VISUAL CORE DESCRIPTION

Page / of /

Total Length 46 cm. Lat. 32° 45.7 N Long. 32° 48.9 & Depth 874 cm. m. Core condition 44 cm. m. Date Core condition 44 cm. m. Core condition 44 cm. m. Core condition 44 cm. m. Core condition 44 cm. m. Core condition 44 cm. m. Core condition 45 cm. m. Core condition 45 cm. m. Core condition 45 cm. m. Core condition 45 cm. Core con Vote condition CONTINUE Date Described 19 34 18 by H Frances
Physiographic location EANTOSTHENES SERMOUNT - EASTERN MED. SEA

Lithologic Log

26 PG

Core No.

CHAIN

Ship:

Expedition 119

Leg No.

Station No. 121 Total Core Length

Detailed Description

CALC 002E 10 YR 4/4 dark yellow brown; 18-20 primarily yellow

Spondes

ST9410

9 4 6 tr

45

45 3 1 87 45 3 42 3

7

42 07

Radiolaria Diatoms

Discoasters

sfissofonnsN

Forams

CISY

Volcanic Selllosz

Micronodules Detrital grains

SEDIMENT

TYPE

LEVEL

Pteropods

Biggenous Material
Calcareous Siliceous

Inorganic Material Silt & Sand

ESTIMATED ABUNDANCES (%)

CALC COZE

CALC COZE

Tades from 10 YR 5/3 brown to 10 YR 6/3 pale brown few, small pale brown and dark brown mottles slightly slity lutite with few forams endium subdued patches end of core NANNO COZE

10 YR 5/6 yellow brown
no mottling
slightly silty lutite with scattered forams
mottled contact from 12-14 brown small, abundant mottling with upper unit slightly silty lutite with scattered forams 20-27 CALC COZE
10 YR 3/3 dark brown
small, abundant light brown mottling
lutite with few forams
G 0-14 10000 + 101 Garan of core: 46 1 1 2 1 1 1 րափափակափակակակակակակակակակակ Pleyroune 1 Mushone

0

Er

48

1 T

tr

54 36 13

calc ooze alc ooze calc ooze calc ooze

Page / of /

Core condition ceallers Dote Described 18 by 17 by 11 FARTIES Physiographic location Errestheness Semicant - Eastern Mediteraneau Ser Lithologic Detailed Description		0-11	10 YR 5/6 yellowish brown few, very subdued mottles		11-19 CALC GORE 10 YR 4/4 dark yellow brown; 17-19 primarily yellow brown brown small, common mottles of above color lutte, forams very abundant 12-13, scattered 18-19 fine laminations in yellow browns 19-26	CALC 002E 10 YR 3/3 dark brown	small, abundant (brown) mottles smooth lutite with few forams	G, irregular 26-43	CMLC 002E 10 NR 5/3 brown, getting somewhat paler at bottom small, abundant mottling at top, grading to few at	bottom slightly silty lutite, few forams	end of core									
Care condition Physiographic loca	Per Mens 1	+		2 2 2	Pleisteune Gertin of core 43	****	Trrr	<u>۔</u> باب	11111	nții	щ	 ,,,,	,,,,	чш	1111	ıııı	<b>—</b>	HII	,11,	11
	-				•															
	`				дукиня			2	5	1										
				eous	Sponges			2	5										1	
		E		Siliceous	дукиня			2	<b>b</b>											
				terial Siliceous	Diatoms Radiolaria Sponqes m m m m m m															
		ш Э		S Materia	Others Diatoms Radiolaria Spondes m M M M M M M	· ·	7 H	4 2	7											
1			(%)	S Materia	Ofscoasters  Others  Platoms Radiolaria Sponges  Man H M H M H M H M H M H M H M H M H M H		tr 4	7												
38 9		46 cm	DANCES (%)	Biggenous Material Calcareous Siliceous	Others Diatoms Radiolaria Spondes m M M M M M M	tt.	נ	4 4	7											
38 9	122	Length 46 cm	ABUNDANCES (%)	S Materia	Pteropods  Officers  Others  Discoms  Others  Sadiolaria  Spondes			7												
1	122	Length 46 cm		S Materia	Nannofossils Pteropods Ofscodsters Others Diacoms Radiolaria Radiolaria	2 78 tr	2 50 tr	3 45 tr 4	2 50 7											
Core No. 6 GC	122	Length 46 cm	ESTIMATED ABUNDANCES (%)	Biogenous Materia Calcareous	Forams Nannofoss11s Nannofoss11s Ofscoasters Ofscoasters Offlers Diatoms Radfolaria	tt.	נ	4 4	7											
1		Length 46 cm		Biogenous Materia Calcareous	Volcanic Shards Clay Rennofossils Pteropods Officers Officers Sadiolaria Radiolaria	2 78 tr	2 50 tr	3 45 tr 4	2 50 7											
1	122	Length 46 cm		Biogenous Materia Calcareous	Zeolites Volcanic Shards Clay Forams Nannofossils Pteropods Others Otscoasters Others Sadiolaria	10 2 78 tr	2 50 tr	44 3 45 tr 4	39 2 50 7											
1	122	Length 46 cm		Biogenous Materia Calcareous	grains Micronodules Zeolites Volcanic Shards Clay Porams Ofscoasters Ofscoasters Others Others Sadiolaria	2 78 tr	2 50 tr	3 45 tr 4	2 50 7											
1	122	Length 46 cm		S Materia	Micronodules Zeolites Volcanic Shards Clay Forams Nannofossils Pteropods Others Others Sadiolaria Radiolaria	10 2 78 tr	2 50 tr	44 3 45 tr 4	39 2 50 7											
1	122	Length 46 cm		Biogenous Materia Calcareous	grains Micronodules Zeolites Volcanic Shards Clay Porams Ofscoasters Ofscoasters Others Others Sadiolaria	tr 10 2 78 tr	42 2 50 tr	tr 44 3 45 tr 4	tr 39 2 50 7											

7 00

Core No.

119

Expedition Leg No.

# VISUAL CORE DESCRIPTION

Page 1 of 3

Total Length 1772 cm. Lat. 22 er. Date Described 15EB16 by Brada.

Core condition Extended PATRAM, SE OF ENAPSTHEMES SEMBINET METANA. Total Length 690 cm. Lat 35 115'N Long 37 16 15 Depth 1829 m Care condition ENEMENT Lithologic

Note: As in core 25 PC the top 7-8 cm of this piston core appear to be a compressed representation of the whole 5 6 cm of the sediment in the pilot core. Every lithologic feature is preserved in a miniaturized, although sometimes disturbed, fashion. This phenomenon no doubt occurred as a result of poor coordination of piston movement with penetration. In this case the movement was delayed and the piston was immobile as the cutter and lower barrel passed through the upper meter of the sediment. The upper 8 cm, as mentioned above, probable squeezed into the empty core cutter slowly and irregularly as the sediment displaced the Detailed Description water trapped within. LOG DATURGED IN LARING 1 1 1 1 1 1 1 1 1 1 1 1 1 111 + 1 21 111 1 1 6 Permen sabuods Biggenous Material Siliceous Readfolbes E Others 43 Discossiers ESTIMATED ABUNDANCES (%) Calcareous spodoual Station No. 127 Total Core Length sfissotonneN + O L S W Z Clay Inorganic Material Silt & Sand spueus Volcanic 20011265 es [ubonora im

10 YR 6/4 light yellow brown, grades to 6/3 pale brown, to 2.5 Y 7/4 pale yellow several zones of common, pale brown and very pale brown mottling 20-30 cm, 44-50 cm, 160-180 cm, 194-204 cm; also grayish brown Mn-rich shadowing 104-115 cm, 134-140 cm very slightly silty lutite with forans and white (largish) preropods scattered throughout an irregular ash zone appears 20.5-22 cm DISTURBED IN CORING - SEE PILOT CORE DESCRIPTION FOR DETAILS CALC GOZE CALC OOZE 204-210 8-204 10101

firm, a bit more compact lutite with scattered forams 2.5 Y 5/2 grayish brown grades to 6/2 light brownish 5 Y 3/2 dark olive gray innumerable, tiny, light gray mottles and flecks throughout sapropel zone S, horizontal CALC OOZE 210-261 

5 Y 3/2 dark olive gray fine white flecks and microlaminations (poorly defined) firm, compact lutite with scattered preroped fragments gray common intermottling in transitional zone 226-237 cm modst, smooth luttle with scattered forams and a few white flecks and pteropods sapropel zone CALC OOZE 261-267

111 了 3 S ŧ tr 80 62 77 64 25 1 Ξ 4 45 t [6117390 9200 nanno ooze 9200 SEDIMENT calc ooze TYPE S Ic celc 11 23 42

Page 2 of 3

2715 Leg I Sta. 139 Core No. 6 Ship CHAIN Cruise

throughout fitm lutite, stiffens with depth, and silty (ash) component becomes more intense 388-396 cm; scattered white calcareous lumps and forams are found throughout CALC SILIC COZE WITH PYRITE 5 Y 3/2 dark olive gray fine, light clive gray aminations and flecks 307-313; darker ones throughout unit somewhat mulchy lutiee with abundant forams and scatvery slight intermottling in transition zone slightly slity lutite with scattered forams tiny, brittle, I cm long, pyritized worm burrows scattered throughout CALC 002E 2.5 Y 5/2 grayish brown, grades to 6/2 light brownish very slight intermottling in transitional zone slightly silty lutite with scattered forams, pteropod fragments and white lithified calc lumps 5 Y 7/2 light gray, grades to 7/3 pale yellow, to 6/2 light olive gray a few faint, light gray mottles and burrows scattered olive gray
straint grayish brown and olive brown mottling 420435 cm; finely laminated thereafter
somewhat stiff, mulchy lutite with abundant forams
and pteropod fragments 2.5 Y 4/2 dark gray1sh brown, grades to 5 Y 3/2 dark 5 Y 6/2 light olive gray, grades to 2.5 Y 6/2 light Detailed Description very sharp horizontal tered pteropods brownish gray sapropel zone G, horizontal S, horizontal S, irregular S, mottled CALC DOZE CALC OOZE CALC OOZE 267-307 and your 698m 100 945 100 ++++ 141 Lithologic 1,1, 1,1, Flestrene

Poge 3 of Core No. 129 Leg I Sto. VISUAL CORE DESCRIPTION -Cruise \_ Ship CHAIN

27 PC

Detailed Description

Lithologic

CALC GOZE 5 Y 5/2 olive gray, grades to 2.5 Y 6/2 light grayish 5 Y 3/2 dark olive gray at few fine, gray flecks and mottles slightly coarse, mulchy lutite with abundant forams sapropel zone common, fine intermottling of the colors above in CALC OOZE brown

transitional zone firm, silty lutite with scattered forams; grades to firmer lutite with abundant forams S, horizontal CALC OOZE 546-574

5 Y 3/2 dark olive gray extensive, tiny, grayish-brown mottles 546-548 cm; large, gray mottles 548-560; finely laminated (olive gray) 560-574 cm sapropel zone horizontal

5 Y 5/2 olive gray, grades to 2.5 Y 6/2 light grayish CALC OOZE brown

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574-605

firm, silty lutite with scattered forams; becomes more compact, with abundant forams common intermottling (well-defined) of the colors above throughout

CALC OOZE

605-614

5 Y 3/2 dark olive gray innumerable, fine, light olive gray burrows and mottles mulchy, firm, foram-rich lutite
5, horizontal

CALC OOZE 614-698

common intermottling of the colors above 620-650 cm firm, slightly slity lutite with scattered forams and a few preropods

Note: the cyclic nature of the above combinations of lithologies should not be overlooked 5 Y 5/2 olive gray, grades to 2.5 Y 6/2 light grayish brown

end of core

Page 1 of 1

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

11 11	10 YR 6/4 light yellowish brown common, pale brown mottling 0-8 cm	moist, slightly silty lutite with scattered forams of, mottled	- 10-24 CALC OOZE WITH MA MICRONODULES 10 YR 4/4 dark yellowish brown a multitude of fine, dark brown microlaminae throughout moist, slick lutite with a few scattered preropod fragments S 24-39	innumerable, tiny, white and male brown mottles and	flecks moist, slick lutite with scattered forams and ptero-	pod tests G	39-76 CALC 002E	10 YR 6/2 light brownish gray, grades to 6/4 light yellowish brown	slight intermottling throughout, with black flecks found scattered throughout	slightly silty lutite with scattered forams and a few pteropod tests	$2~\mathrm{cm} \times 2~\mathrm{cm}$ , porous chunk of coral/limestone 63-65 cm end of core								
Total Length 716 cr Core condition Exists Physiographic location Lithologic Liphologic Log	1111	1 91	1 1 1 1 1 1	Mesmene and of un the	,	'I''		יייי	•	711		,,,,		· · · · ·	,,,,,		11111	.11.	
		TT	дыжныш	H	_	1	80		3 18	7	17	-	00	7	T	1			1
		eous	Sponge			-	-	-	1			-	-		-	+			+
5		Siliceous	Sinotoms Sinoforia	-	-	-	+	+	2		1		-				$\Box$	1	1
		Ceria	0thers	00	9	00	2	12	9	0	3	10	6	1	+	+	$\Box$	1	-
	1	S Mat	Discoasters	+	+	+	5		+	1		-	1	+	+	+	$\dagger$	+	
88		3 0		3	+	2	+	-	+	-	-	5	+	-	+	+	+	+	+
869	(*) S	Seno Seno	le ceropods	-	-	-	-		2	65	35	50 t	45	55		1	1	1	
	DANCES (%)	Biogenous Material Calcareous	Vannofossils Pteropods	0.0	50	0	~	2	m		-		-		-	1	+-+	-	-
27 PC 129 ngth	3	Calcareous	2[t220Tonn5N	50	r 20	07	30	45	35	1		61	~						1
27 PC 129 ngth	3	Calcareou	Forams SfizzolonnaM	27 7 50	14 tr 20	45 5 40	52 4 30	37 4 45	24 8 3	22 9 6	3	35 2	33 3	29 4	-	-		+	+
27 PC 129 ngth	TIMATED ABUNDA	3	shards Clay Forems Sftszotonnek	27 7	14 tr	2	4	4	80	6	-	-	-	-+					+
	TIMATED ABUNDA	3	Volcanic Shards Clay Forams Nannofossils	7	22	2	4	4	80	6	-	-	-	-+					
27 PC 129 ngth	TIMATED ABUNDA	3	Zeolites Volcanic Shards Clay Clay Forams	tr 27 7	60 14 tr	2	52 4	37 4	24 8	6	3	-	-	29					
27 PC 129 ngth	TIMATED ABUNDA	3	Volcanic Shards Clay Forams Nannofossils	27 7	14 tr	2	4	4	80	6	-	-	-	-+					
27 PC 129 ngth	TIMATED ABUNDA	Inorganic Material Biogeno	Micronodules Zeolites Volcanic shards Clay Rorams	tr 27 7	60 14 tr	2	52 4	1 tr 37 4	2 tr 24 8	6	3	-	-	29					
27 PC 129 ngth	TIMATED ABUNDA	3	Arenouales  Zeolftes  Velcanic Shards Clay  Forams	2 tr 27 7	tr 60 14 tr	45 5	1 52 4	tr 37 4	2 tr 24 8	22 9	11 2	35	33	tr 29					

# SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Cruise 119 Leg 2 Sta 131 Core No 28 PC.  O Cm. Lat 35° 58.8' N Long 33° 37.3' E Depth 24.20 cm.m.  Exceptent Date Described 41 Feb 14 by T. Fraemer.  Control Centres. Crees. Result F. of Engrettistes Schmount E. M.S.	C Telicien		0-4 00TOV	4-76 CATE CIAV AND LITERITY CATE CIAV	Only CATA AND HIGHT CALC CAN 10 W 4/3 brown, 4/2 dark grayish brown, with lesser amounts of 5 % 4/2 olive gray and 10 YR 6/3 pale	appear in the lower half of the unit; above colors appear in varying hues in sharply contacted macro- laminations the contacted macro- near little most three dark broam laminations	are present from 10-12 cm smooth, very slick, unconsolidated lutite, except the tinn, pate brown laminations which are slightly slity lutites with scattered forms and nearonds	S 76-163	CALC CLAY	from 122-141 cm	homogeneous, except 5 mm bed of sapropelic, slightly eiler luite (5 V 3/2 dark olive oray) at 86 5 cm	mooth, very slick, unconsolidated lutite	S — 163-236	HIGHLY CALC CLAY, CALC OOZE, AND MINOR AMOUNTS OF	ale brown, 2.5 Y 4/4 olive brown	colors appear as macrolaminations in a somewhat cyc-	lic sequence as listed above some intermottling is scattered throughout	the browns and pale browns tend to be slightly silty	nations are smooth, slick lutites	236-258	5 Y 5/2 olive gray, grades to 2.5 Y 4/4 olive brown	scattered, dark olive gray mottles from above slightly silty lutite with forams common; grades to	S smooth, sticky lutite	258-355 CALC 00ZE	10 YR 5/3 brown and 6/3 pale brown; varying hues of	scattered intermetring	Stagning starty nutrice with scattered lording	
Ship Canal Cruise 119 Total Length 700 cm. Lai Core condition EXECULENT	Lithologic	I	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1	 	1 1 1	1 1 1 1	           	14	1 + +	1 1 1 1 1 000	1 1 3	1 1 1	1 1 1	1 1 1	1 1	10 + 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	1 + 1 + 1 + 1 + 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1	1   4	1111	1 1 1	1 1 -	11 1	24   1	500 H
		0	renuc																				4					3
					Siliceous		ondes Schoolaria	15			10		-															
			ED		terial		Smote	+		3	00	100	3	,			-					-	-	-	+	+		
10	,	1	9/	34	Biogenous Material	s.	scoaster	+																İ				
T CORE	27 PG	129	-	ABUNDANCES (%)	Biggenou		spodoue	+	+-	+	tt		-	-	-	-			_		-	-	-	+	+	+	-	
DIMEN	2	- 1	Total Core Length	ABUND/	3	21	i s so i o n n i	9	2	55	50	-	9		+	+	+			-		-	-	+	+	+	+-	1
1. SE	.0	No.	00	ESTIMATED			Clay	20 CC	+	18 4	23 7		31 5	+	+	+	+	-		-	-	-	+	+	+	+	+	-
.н.	Core No.	Station No.	Total	ESTIP	lal	sp.	sharic	+		+				+	+	+	+			-			+	+	+	+	+	1
- SNO					Silt & Sand		selifos	+		+					t	+	1						-	+	t	+	+	
RIPTI					ganic ilt &	sə	ubonora	+-	,	18			1			1	1						1		t	+		
: DESC	1				Inor	su	grai	o c		2	2		1_		T	T	1								T	T		
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES	D: CHAIN	Expedition 119	Leg No. 2			SEDIMENT	TYPE	ale ocea	m/w	micronodules	-	calc ooze/others	-															
	Ship:	Expe	Leg			<u> </u>		-	-	20	30	65	75															

Poge 2 of 2

Core No. 28 PC Leg 2 Sta /3/ Ship CHAIN Cruise 119

Lithologic 507 200

Detailed Description

355-366
CALC OOZE
5 Y 3/2 dark olive gray
very fine, subdued microlaminations
very fine, subdued microlaminations
slightly silty, humans-like, sapropelic lutite; forams
are common and pteropods abundant

Plessacore

366-407

iliminimini miniminimini

5 Y 4/2 olive gray homogeneous, except few small mottles near top firm, slightly silty lutite byls cm: 1 mm lithified lamination of calc ooze/pyrite with detritus, 5 Y 3/2 dark olive gray HIGHLY CALC CLAY

LEVEL

0

1

407-455
CALC OGEE
5 Y 4/2 and 5/2 olive grays, grades to 5/3 olive; colors appear as macrolaminations intermottling is common in top 20 cm generally a slightly silty lutite, occasional lamina-

tions are less silty 436-440 cm, shell hash (calc ooze with detritus)

+ ent & core.

CALC CLAY
5 Y 3/2 varying hues of dark olive gray, and 4/2 olive
gray, 490-493 cm
very small, pale mottles are common in top 13 cm
smooth, compact, sticky lutite, except two thin (5 mm)
beds of slity, humus-like, sapropelic lutite with
common forams

498-505
CALC CLAY
5 Y 4/2 olive gray
no mottling

smooth, compact, sticky lutite 505-700
CALC CLAY
flow in of above
end of core

# SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

28 PC Station No. 131 Core No. CHAIN Expedition 119 Ship:

200 Total Core Length

Leg No.

E

Biogenous Material
Calcareous Siliceous 617 suas ESTIMATED ABUNDANCES (%) sp stiss SW psugs Inorganic Material Silt & Sand S səlnp sulea SEDIMENT TYPE

<b>E H H M</b>		5	1	1			oc	57	2 5		-	-	-			
Sponges			t													
Radiolar																
2mots to	t		t													
219430	~	2	1	7	-	6	2	38	1	9	3	3	2		1	
Discoast		Ħ	1	t			1		1	Ħ		Ħ		1	1	1
Pteropod			-		ţ	Ħ	-	1	1	2		Ħ	5	1		1
Nanno fos	10	15	10	20	14	25	43	E	12	42	2	3	4			
Foram	1	ä	1	2		t	-	1	1	1			T.			
Clay	83	83	84	74	84	09	45	-	80	94	76	93	68	1	1	
Volcanic Az								H						1	1	
Zeolítes																
Micronod	2	Ħ	-	-		ä						5	1	1	1	1
Detrital	t	ti.	T.	-	1	9	11	16		9	77	1	-	1	1	1
-	=	-		+	-	-		te		-	-	-	-	=	+	+
	alc clay	highly calc clay	alc clay	highly calc clay	calc clay	calc ooze	alc ooze	calc ooze/pyrite	highly calc clay	calc ooze	calc clay	calc clay	calc clay			
-	_ 5	료 0		E 0	3	3	Ü	0 3	€ 2	2	3	2	3	+	+-	+
	5	70	145	176	231	303	359	390.5	405	7777	475	200	669			
						1				1			- 1	- 1		1

Page / of 1

Ship CHAIN Cruise 119 Leg 2 Sta. 131 Core No. 28 Re.
Total Length 140 cm. Lat. 33° 58.9° v. Long. 33° 37.2° c. Depth. 2220 cm.n.
Core condition Excellent Date Described 4 Feb. 7c by 7 FARMER
Physiographic location Gentral Cypeus Basin, E. of Ekatasthewes Scambust, Emis. Ship CHAIN

Lithologic

1 Plus meno 007

Detailed Description

0-138
HIGHLY CALC CLAY AND MINOR AMOUNTS OF CALC COZE
10 YR 4/3 brown, 4/2 dark grays ha brown, with lesser
amounts of 5 Y 4/2 odive grays and 10 YR 6/3 pale
brown in the lower half of the unit; variations of
colors appear in macrolaminations
slight motiling is scattered throughout; 10-13 cm dark
brown laminations scattered throughout; 10-13 cm dark
smooth, very slick, unconsolidated lutite, except the
pale brown laminations which are slightly silty lutites with scattered forams and pteropods

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+ +

4

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18

Peustuene -

138-140
CALC CLAY
5 Y 4/2 olive gray
homogeneous throughout
smooth, very slick, unconsolidated lutite
end of core

632

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 28 PG Station No. 131 CHAIN Expedition 119 Ship:

Leg No.

140 Total Core Length \_\_

E

t tr tr 1 sabuods Biogenous Material
Calcareous Siliceous Radiolaria 2 mots r0 7 2 Others Ħ ij Discoasters ESTIMATED ABUNDANCES (%) pteropods t 7 10 SfizzolonnsN 15 9 18 Forams t 2 ţ 35 17 80 98 Clay Inorganic Material Silt & Sand Volcanic Zeolites tr tr Mi cronodul es Detrital grains ţ tr tr SEDIMENT calc ooze highly calc clay highly calc clay TYPE calc clay LEVEL 130 139 62

Page / of 2 VISUAL CORE DESCRIPTION

Total Langin 1272 cm. Lat. 15 Core Course Consciped 176871. by 18644.

Core condition EMIENU CYTRYS BASIN SWITT OF EMIENU CRAUSE OF CHAUSE BRIDGE Physiographic location EMIENU CYTRYS BASIN, SWITT OF EMIENU CRAUSE OF CHAUSE BRIDGE. 

0-88 ENTIRE TOP SECTION (9) WASHED, DISTURBED, AND Detailed Description DISTURBED AND UNSTRATIFIED Lithologic

varying hues of 10 YR 6/4 light yellowish brown, 6/3 pale brown, and 6/2 light brownish gray slight intermocting of the colors above with the addition of grayish brown burrows found scattered throughout: numerous, sharply defined, textural beds are described below. UNSTRATIFIED CALC OOZE 88-362

smooth, very slightly silty lutite predominates with a number of very pale brown and grayish brown, somewhat graded bedes of a little derital silt and predominantly calcareous fragments: the following intervals define the major beds: 156-163 cm (ends with an olive yellow lamination); 190-193 cm; 220-227 cm (intolined basal contact x.25°); 258-264 cm; 270-277 cm (ends with olive yellow lamination); 277-282 cm (usashed, irregular basal contact); 297-301 cm; 310-313 cm; 315-322 cm; 331-

+ 1 1

CALC OOZE WITH A NUMBER OF BEDS OF CALC OOZE WITH S, horizontal DETRITUS E 362-693

varying hues of 2.5 Y 4/2 dark grayish brown and 5/2 grayish brown very alight intermottling of the colors above: extensive a letrating interlamination and bedding, with the addition of 5 Y 3/2 dark olive gray aspropels at the intervals below firm, slightly slity lutite with a few forams dominates, but olive gray and grayish brown silt and fragmented prepopols and foram beds are common: 36-370 cm (sapropel with abundant pteropod fragments); 390-410 cm (come of nearly pure silt; 4/4-4/9 cm; 4/3-4/3 cm; 4/3-4/3 cm; 4/3-4/3 cm; 4/3-4/3 cm; 5/4-4/3 cm; 5/3-4/3 cm; 5/3-4/3 cm; 5/3-4/3 cm; 5/3-4/3 cm; 5/3-4/3 cm; 5/3-4/3 cm; 5/3-4/3 cm; 5/3-4/3 cm; 5/3-4/3 cm; 5/3-4/3 cm; 5/3-4/3 cm; 5/3-4/3 cm; 5/3-4/3 cm; 5/4-4/4 cm; 5/4 cm (well-graded); 665-672 cm (slightly graded); 688-693 cm (some medium sand)

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1,1

1 18

693-1294

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1310 lendottore nede

VISUAL CORE DESCRIPTION

Page 2 of 2

Core No 29PC Leg I Sto. Ship CHAIN Cruise 119

Lithologic

Detailed Description

1.7 Pleus foreme 

Ship <u>CHAIN</u> Cruise 119 Leg II Sta. 122 Core No 2976— Total Length 141 cm. Lat. 34' 091'N Long 34' 23.0'E Depth 2013 m. wx. Core condition <u>EXXELLENT</u> Date Described LEB16 by Autority Physiographic location <u>ERYERN XPRYS SAFAN ISNUTE OF CHINNS ENGINEE</u> MED

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

ip:	CHAIN	Core No. 29 PC	
xpedition	00 119	Station No. 133	Pleus
ed No.	2	Total Core Length 1294 cm	

Pleutine 1	7	9 ]	5	1	1 1 1 1 1	1	101	0	, m.	1	10	1	180 - 1 05/	n I	1111	Lii		· · II ·	щі	щ	111
Pleus												Meistovene									
			1	-	пыняки	4	7	-	Ţ	7	-	4	- 1	-	t	.2	4	4	TI		1
				Siliceous	Radiolaria														contains a significant percentage of pre-Pleistpeene names		
	5		اه	Sil	smots id														cene		
			Biggenous Material		0thers	7	12	25	12	25	8	4	2	+55	00	10	12	9	eistp		
1	1294	2	M SNO	sn	Discoasters				Ħ										re-P		
		ES (	oden	Calcareous	Pteropods	2		-		4	1	T.	ij	15	Ħ		2	5	of		
133	lgth .	ESTIMATED ABUNDANCES (%	8	Calo	2 f i 2 2 0 1 on n 5 N	45	30	9	35	00	30	30	35	5	30	25	20	12	ntage		
0	Total Core Length	D ABL			Forams	01	4	45	1	07	4	ä	2	12	2	12	7	Ħ	erce		
Station No.	Cor	IMATE			Clay	29	64	16	84	14	54	9	56	10	54	36	64	73	ant		
Stat	Tota	EST	Inorganic Material	p	Volcanic sbrads														gnific	ts	
			c Mat	Silt & Sand	sellfoez														es es	shell fragments	
			rgani	Silt	Mi cronodul es	Ţ	Ħ	t	-	1	ä	tr	ţ	tr		Ħ	Ħ	Ħ	tains	11 fr	
1			Ino		Detrital grains	3	5	1	3	80	6	2	2	3	9	15	9	00	*	+ she	
Expedition 119	Leg No. 2		- 1		SEDIMENT TYPE	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze	calc coze	detritus	calc ooze	calc clay			

0-141
GALC 002E
varying hues of 10 YR 4/3 dark brown, 4/2 dark grayish brown, and 5/2 grayish brown
slight, faint intermottling of the colors above throughout the core
moist, unconsolidated, very slightly silty lutite dominates the core, with several extremely silty (somewhar graded) beds found 38-44.5 cm, 62-67 cm, 112118 cm (interlaminated and nicely graded)
end of core

Detailed Description

### VISUAL CORE DESCRIPTION

Page 1 of 3

Ship CHANN Cruise 1/9 Leg 2 Sta 125 Core No. 30 PC.

Total Length 652 cm. Lat. 23 35 264 / Long 34 0/156 E Depth 20/3 av. a. Core condition excellent Date Described 3 Fig. 12 by H. FRAMER Physiographic location Ensites Commission Frames Semment, EMS Core No 30 AC Cruise //9

111 4 4 4 4 4 4 7 7 1 Pushune = -+ ES 141 ESTIMATED ABUNDANCES (%) Total Core Length \_\_ Station No. 133 Inorganic Material Silt & Sand

29 PG

Core No.

CHAIN

Ship:

Expedition 119

HHERE sabuods Biogenous Material Siliceous Radiolaria Diatoms 15 7 2 4 others t, Discoasters t, 15 pteropods ~ 20 05 07 45 04 sffssotonnsk 29 10 Forams 27 6 9 37 3 26 39 Clay Volcanic Sealtoez 11 Micronodules tr Detrital SEDIMENT TYPE calc ooze calc ooze calc ooze calc poze calc ooze Leg No. LEVEL 8 140 116 42

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CALC 002E

10 YR 6/3 pale brown, 5/2 and 4/2 grayish browns; colors
appear as somewhat disturbed and mortiles
no mortling
slightly silty luttle with few forams, except 14-17 cm
a fine sand bed washed and distorted along core liner
(calc ooze/detritus) CALC COZE 2.5 Y 3/2 very dark grayish brown comedhat disturbed, subtle laminations slightly silty, unconsolidated lutte with narrow (3mm) laminations of biogenic sand in middle NOTE: On comparison with the pilot core, the top 17 cm do not appear stratigraphically continuous. Eather, it seems that certain sediment was preferentially sampled as the lower core barrel entered the sediment before the piston moved. 17-180
CALC OCSE INTERBEDDED WITH CALC OOZE/DETRITUS
CALL OLYR 6/3 pale brown and 5/3 brown with minor laminations of 7/3 very pale brown; colors appear as gradational macrolaminations, generally becoming darker interbedded with very pale brown fine to medium sands 56-59, 74-76, 103-107, 136-139, 168-171 cm; occasional inclusions of these fine sands occur elsewhere in the unit scattered mottling of pale brown and brown occurs throughout; 87-95 cm, black mottles are scattered silty to slightly silty lutites with scattered forams subtle, scattered mottling slightly silty, slick lutite with scattered forams Detailed Description CALC OOZE/DETRITUS 10 YR 6/3 pale brown 10 YR 5/3 pale brown homogeneous washed, fine sand S, disturbed with depth CALC OOZE S 7-17 0-3 2-7 (H, , 4:4:4:4 1 4:4:4:4 1 4 4 4 8 1 4 4 4 8 1 1 2 4 :44 1 1 1 1 1 1 + 1: 1 1 1 1 1 1 1 1 1 1 . <del>.</del> . + 1 to 1 (-) (-) (1) (1) Lithologic 1 1 4 4 4 1. 300

Page a of 3

Core No. 30 PC 135 Sta Leg 2 611 Cruise Ship CHAIN

CALC OOZE/DETRITUS
10 YR 5/3 brown
laminated in thus of brown, becoming grayer with depth
fine, but somewhat disturbed sand, lutite clast from
lower unit present at 209 cm Detailed Description S, but very disturbed 5 Y 5/3 olive no mottling CALC OOZE 180-224 4 1101 4 4 4 4 5 4 4 + + + 4 1 ß end of core . 652 101 4 Lithologic + + + 1 + + 28 Pleistreno

silty to very silty lutite with sandy clasts indicating disturbance and some mixing with above unit

5 Y 4/2 (predominant), 5/2 olive grays and 3/2 dark olive gray (246-248 cm) macrolaminations with no mottling, but some coring 232-298 CALC OOZE INTERBEDDED WITH DETRITUS disturbance of sandy units

silty to very silty lutite interbedded with fine sand; forams and pteropods are abundant 239-242 cm, but generally scattered in top portion and decrease with

CALC GOZE INTERBEDDED WITH CALC GOZE/DETRITUS

5 Y 5/2 olive gray (predominant) with lesser amounts of 4/2 and 3/2 olive gray and dark olive gray macrolaminations with minor, localized mottling 314-316, lutites vary from slightly to very silty, interbedded with fine sand; forams are scattered at top but decrease rapidly in remainder of lutite 341-346 cm

CALC CLAY

5 Y 3/2 dark olive gray scattered, small, pale olive mottles throughout smooth, firm, sticky lutite

<del>արակապարակապատիսակապարա</del>

2.5 Y 6/2 light brownish gray brownish-gray mottling is common in the top 7 cm; below this to 4/10 cm are numerous, very pale mottles and sandy clasts that appear to have come from several CALC OOZE

disturbed laminations silty, somewhat sticky lutite with several sand lams distorted into isolated clasts

VISUAL CORE DESCRIPTION

Page 3 of

30 PC Core No. Leg I 6 Ship CHAIN Cruise

2.5 Y 6/2 Light brownish gray, grades to 10 YR 5/3 brown 2.5 Y 6/2 Light brownish gray, grades to 10 YR 5/3 brown 4/2 dark grayish brown sticky, slightly slity luttle becomes less silty with sticky, slightly brown unit is a smooth lutite; 451-453 cm disturbed, fine sand Detailed Description Lithologic

CALC OOZE/DETRITUS 5 Y 5/2 olive gray S, disturbed

homogeneous fine sand

HIGHLY CALC CLAY S, disturbed

10 YR 3/2 very dark grayish brown slight mottling from below smooth, sticky lutite s, very distorted

CALC OOZE

dark grayish brown mottles are common in top 10 cm and slightly silty, sticky lutite S, but severely burrowed 540-576 5 Y 5/2 olive gray bottom 14 cm

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HIGHN CALC CLAY AND CALC OOZE
5 Y 312 dark olive gray (primarily 540-547 cm), and
4/2 olive gray
sever marbling of above colors appears to be mostly
due to burrowing; however, coring disturbance is
clear above and below and may be partially responsible
slightly silly, sticky lutite with few forans; two thin
detrital sands at 546 and 548 cm

S, very distorted

5~Y~5/2 olive gray, becomes somewhat paler with depth dark olive gray mottling is common from 588--597~cm, scattered in rest of unit silty lutite with few forams, except fine sand (calc ooze/volcanic ash/detritus) 597-602 cm CALC OOZE

5 Y 6/2 light olive gray and 5/2 olive gray severely disturbed, probably flow in silty luttle with few forams end of core

CALC OOZE

Page / of /

Ship CAAIN Cruise 1/9 Leg 2 Sta. 135 Core No. 30 P6. Total Length 1/1 cm. Lat. 33° 35.786 W.Long 34° 01.156 /r Depth 2013 arran. Core condition EXESSENT Depth 2013 arran. Described 3 Feb 1/4 FARMEN Physicarophic location Existent Cyprus Brain E. of Entremples School.	Detailed Description	1	0-49 CAIC GOOD AND CALC GOOD THEFT	_	scattered, subdued mottling in lower 10 cm slick, unconsolidated lutite with scattered forams and precedunds; interheded with brown, precond-rich	4 7 1	silty lutites interbedded with fine sand and very, very silty lutite	9 9	CALC 002E 10 YR 5/2 grayish brown, grades to 6/3 varying hues of	pale brown, with lesser amounts of 4/2 dark grayish brown in bottom 9 cm	scattered mottling between macrolaminations of above colors	Silty lutite With Scattered lorams, dark grayish prowns are smoother and less silty; narrow (Jumn) sand lense at horton	8 S S S S S S S S S S S S S S S S S S S	CALC 002E 10 YR 5/3 brown, tends towards 6/3 pale brown	scattered mottling of above colors slightly silty lutite with scattered forams	end of core							
Ship CHAIN Total Length Core condition Physicarophic is	Lithologic	1 - 1 - 0 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	  GS   -	111	19	Y PESSEUM 100	l	יויי צ	1.	711	L	т. Т	411		· · · · ·	•	T''	-1111	יייי נייי	111	τŢτ	····T	<del></del>
					ST	Spenges																	
			F		Siliceous	Redioleria																	
			E		Sil	Smoteid													1				
					Material	Others	67	4	0	37	18	7	10	7	3	10	10	31	7	07	4	29	9
S	1	1	652	(%)	S	Discoasters		t.				Ħ					11						
SEDIMENT CORES	30 PC	135		NCES	Biogenous	pteropods		1	T .	_	<u>.                                    </u>	7	_	7	t	7	Ħ	4	4	-	2	2	-
MENT	3(	7	ength	SUNDA	S	sitssofonnsM	2	58	54	1	1	20	-	26	12	70	38	7	8	3	45	tr	4
	-	No.	Total Core Length	ESTIMATED ABUNDANCES		Forams	m	ä	ä	-	1	ä	-	-	1	-		2	=		_	2	-
.0.1	Core No.	Station No.	a) Co	IMA		Clay	-	36	04	2	4	58	2	09	84	87	50	-	52	Ħ	99	7	45
¥.	Con	SE	Tot	ES	erial	Volcanic sbrans												1				35	
ONS					Inorganic Material Silt & Sand	səşşloəz																	
RIPTI					lt &	Micronodules	-		Ħ				1	H	1	T			1				
DESC	1				Inor	Detrital	45			09	7.1	2	88	5				59	2	90	2	31	5
106	7	4	7			[	4	-	-		1	5	Φ.										
SHEAR SLIDE DESCRIPTIONS - M.H.O.I.	: CHAIN	Expedition 119				SEDIMENT	calc ooze/	calc ooze	calc ooze	calc ooze/	calc ooze/ detritus	calc ooze	detritus	calc ooze	calc clay	calc ooze	calc ooze	calc ooze/	calc ooze	detritus	cale ooze		calc ooze
	Ship:	Expe	Leg No.			LEYEL	-	00	80	137	212	244	295	330	370	396	457	964	544	248	585	009	650

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Page 1 of 2

VISUAL CORE DESCRIPTION

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Ship CHAN Cruise 119 Leg IL Sta. 177 Core No 31/0.  Total Length 637 cm. Lat. 31' 51.2'V Long. 35' 452'E Depth 1637 m. pur.  Core condition ExtendeDepth 1640 Depth 1640 Long. 154 Core No. 1640 Leggl	gic		CALC GOZE	10 YR 6/3 pale brown, grades to 6/1 light gray	slick lutite with a few forms Note: The top 22 cm of the piston core appear to be	a compacted facsimile of the whole 97 cm of the sur-	10-15 ALC 00ZE	5 Y 3/2 dark olive gray extensive fine, light gray mottling and microlamina-	1 1	Sapropel zone	15-213	10 YR 6/4 light yellowish brown, grades to 6/3 pale	100	IIS - OT OT	depth; a few pteropod and shell fragments (pelecy-	tions of foram sand	the the state of t	11	S Y 3/2 dark olive gray	101	= 1 1 1 1	sapropel zone	226-325	CALC 002E	back to 5/2 grayish brown,	common, fine intermottling 250-310 cm	the tirm, compact, smooth lutite with scattered forams and pteropod fragments	1	at unit basal contact	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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ORES	9			ES (	Biogenous Material		sp	eropo	4d	Ħ	00	:		7																		
MENT CORES	30 PG	135	gth	INDAN	Cal		sits	ofonn	EN	40	Ħ	47		Ħ	94																	
SEDIA	1	ó	e Ler	D ABL			su	Fora		T.	7	-		2			I															
.1.	Core No.	Station No	Total Core Length	ESTIMATED ABUNDANCES (%)			A	Cla		55	Ħ	47		t	50																	
± ±	Co	Stat	Tota	EST	rial		pgugg	s J C9U į	٥٨									1														
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E DESC	-				Inor		l rains	estras g	<b>ə</b> 0	2	20	1	: 3	09	tr		T	1			1			T			T	1				
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDI	CHAIN	119	2			1			+	ze	12e/	45	,ze/	SI	92c		-				-			-				-				
5	Ship:	Expedition	Leg No.	_		3	TYPE			calc ooze	calc ooz	calc 002a	calc ooze,	detritus	calc ooze			-														

Page 2 of 2 VISUAL CORE DESCRIPTION

3186 Core No. 137 Leg I Sto. 611 CHAIN Cruise

CALC GOZE

5 Y 3/2 dark olive gray
a few, fine, light gray microlaminations 330-334 cm
slick, compact lutite with a few pteropods in the microsapropel zone Detailed Description 325-334 Lithologic Log 1 1

es

334-416
CALC 002E
10 W S/2 grayish brown, grades to 6/3 pale brown
common intermottling in the transitional zone 356-365 cm
firm, slightly silty luttle with a few forans, becoming
more abundant with depth 141

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Meisterne

416-463
CALC SILIC COOZE
CALC SILIC COOZE
TO 37 3/2 dark olive gray intense, very fine, light olive gray mottling 416-431; basically homogeneous 431-463, with a few fine microstack lutite with abundant forams and scattered pteropods sapropel zone and of course 631 cm

8

HIGHLY CALL CLAY WITH BEDS OF CALC CLAY/DETRITUS;
BIGHLS TO CALC CLAY WITH BEDS AND LAMINATIONS OF
CALC CLAY/DETRITUS
10 YR 4/1 dark gray
10 YR 4/1 dark gray
several shadowy, very dark gray zones associated with
textural anomalies
compact, slick lutte with several silty beds and laminations: broad beds - 468-472 cm, 478-482 cm, 620624 cm; laminations - throughout the zone 515-615 cm
end of core 463-637

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	30	30 2	30 2 46 3 29 5	30 2 46 3 29 5 50 3	30 2 46 3 29 5 50 3 63 3	30 2 46 3 29 5 50 3 63 3	30 2 46 3 29 5 50 3 27 tr 61 1	30 2 46 3 29 5 50 3 63 3 61 1 71 tr	30 2 46 3 29 5 50 3 63 3 27 tr 61 1 21 tr

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Page / of /

Ship CHANN Cruise 119 Leg II. Sta 137 Core No. 31PE.
Total Length 77 cm. Lat 31.56.214 Long 559450'E Depth 1657mcore.
Core condition Excellent Date Described 16F6916. by 1914/C.
Physiographic location Leyent Antronn. English segimenance Sea. Ship CHAIN

Lithologic

Detailed Description 0-32 

Mershane

CALC 002E

10 TR 6/4 light yellowish brown
homogeneous throughout, except for some slight intermottling at basal contact
moist, slick, unconsolidated lutite with a few scattered forams
5, mottled
5, mottled 1 1 1

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CALC 002E

5 Y 3/2 dark olive gray
incense, very fine, light olive mottling and flecking
throughout, with two very large, graylsh-brown burrows spanning liner 37-38 cm, 41-42 cm
moist, slick lutite with abundant forams and scattered
sapropel zone

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and of un: 97 cm

Pleastreme

10 YR 5/2 grayish brown, grades to 6/3 pale brown, to 6/4 light yellowish brown slight, fine intermottling throughout moulst, slick lutite with a few scattered forams end of core CALC OOZE

648

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

31 PG 137 Station No. Core No. CHAIN Expedition 119 Ship:

Leg No.

16 Total Core Length \_

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		Siliceous	Radiolaria															
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	Biogenous Material		Отрега	4	2	4	00	12										
9	Sno	Sn	Discoasters															
CES (	iogen	Calcareous	Pteropods	4	6	7	2	~										
ESTIMATED ABUNDANCES (%)	8	Cal	sfissolonnsN	09	99	50	52	42										
D AB			Forams	6	2	9	7	2										
IMATE			CJey	23	30	29	24	36										
EST	erial	Silt & Sand	Volcanic sbrands															
	Mat	& Sar	Zeolites															
	raani	Silt	Micronodules	6	4	Ħ	tr	Ħ										
	Inon		Setritad Safang	6	1	2	1	6										
			SEDIMENT	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze										
			LEVEL	-	30	07	65	96										
-		-				-	-	-			-	+	_		-	-	•	

Lat. 32° 50.07" Long 32° 59.27" Depth 1381 cm. ps Date Described 9 Feb 76 by T FARMER Physiographic location Edge of LEVANT PLATFORM N. of Part Said, Egypt. EMS. Cruise //9 Core condition Excertent Total Length 876 Ship CHAIN Lithologic

Detailed Description 444 414

Newstern -

Correlation between the piston and pilot cores is very uncertain and it should be noted that the top of the piston core may not represent a continuous section. 5 Y 3/2 dark olive gray some mixing has occurred with lower unit slick, slightly slity lutite with scattered forams and piercopods CALC OOZE CALC GOZE 1111 44 44

10 YR 5/3 brown and 4/2 dark grayish brown occur in very gradational macrolaminations small mottles of the basic colors are common throughout silty luttee with scattered forams and preropods; 36-

10 YR 5/3 varying hues of brown small, dark gray mothes are common in lower half and decrease somewhat in top portion slick, silty lutite with scattered forams 37 cm is a calcareous silt CALC GOZE 14144 111

44

7007

HIGHLY CALC CLAY 5 Y 3/2 dark olive gray numerous, very small, pale mottles, particularly in lower half, and several larger, light grayish-brown mottles near the top slightly silty, sapropelic lutite, pteropods are com-mon particularly at the top, and forams throughout 10101 11 ++

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2.5 Y 4/2 dark grayish brown, grades gently to 10 YR 6/3 pale brown, followed by 5/3 brown mottling of the primary colors is present throughout, but more common in the lighter colors slightly silty lutite, becomes very silty in the middle (pale brown), and somewhat less towards the bottom; two fine, sand laminations appear at 95 cm and a pteropod-rich layer at 115 cm CALC OOZE

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CALC 002E 2.5 Y 4/2 dark grayish brown, grades to 5/2 grayish 142-155 111 144 11111

VISUAL CORE DESCRIPTION

Page 2 of 4

32 PC Core No. Sta 139 Leg 2 611 Cruise Ship CHAIN

Detailed Description Lithologic

HIGHLY CALC CLAY

5 Y 3/2 dark oilve gray and 2.5/2 black
whole unit is maicrolaminated in above colors, and
immumerable, small, pale mottles appear in top 20 cm
silty, mulchy, sapropelic lutite; forams are fairly
abundant in top 20 cm, but decrease considerably at

5 depth; 195-197, slick lutite layer 5 Y 4/2 grades to 5/2 olive grays maior motified of above colors is present throughout fairly silty luttle, forams and preropods are generally common, particularly in lower 30 cm 5 Y 3/2 dark olive gray a few small, pale mottles appear throughout, and a large, grayish brown mottle at the top silty, sapropelic lutite with few forams 10 YR 5/2 grayish brown
a few mottles from above are scattered in top 2 cm
fairly silty lutite, forams are scattered
S, but severely disturbed numerous, very small, black mottles appear in the first 4 cm fairly silty lutite, becomes smoother as forams decrease with depth HIGHLY CALC CLAY 142-155 (cont.) CALC OOZE CALC OOZE 155-163 163-254 254-302 11 1414 1414 1414 1414 1414 1111 1 1<sup>1</sup>1 1<sub>1</sub>1 + 1 1 1 4, 11, + + 1 1 + + + 1 + 4 1 1 + 700 800

10 YR 6/3 varying hues of pale brown theef is some slight marbling between hues; 385-415 cm shows a general hint of olive; numerous, small, pale mottles from 428-446 cm firm, silty lutite, becomes coarser and more compact in interval 385-415 cm CALC OOZE end of core- 876

10 YR 6/2 light brownish gray
a few, grayish brown mottles extend from above unit
plastic-like, silty lutite, forams are scattered

very G

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Pleymene

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CALC OOZE

32 Core No. Sta. 139 Leg I 611 Ship CHAIN Cruise

Detailed Description Lithologic

innumerable, fine microlaminations are particularly well-defined in lower half firm, silty, mulchy, sapropelic lutite; forams vary from scattered to abundant 5 Y 4/2 olive gray, 3/2 dark olive gray laminations in lower half

503-556 CALC 00ZE

5 Y 6/2 light olive gray, grades to 5/2 olive gray fantomerable, small, very subtle mottles appear from 537-55 cm very silty lutite, grades to fairly slick lutite with fewer forams

5 Y 3/2 dark olive gray innumerable, small, pale mottles throughout firm, fairly slick luttle, forams are scattered 5, but severely disoriented HIGHLY CALC CLAY 560-576

5 Y 3/2 dark olive gray minmerable, vell-defined microlaminations silty, malch-like, foram-rich sapropel, grades to a slicker lutite in lower 5 cm 5 Y 5/2 grades to 4/2 olive grays abundant, small mottles from above slightly silvy lutite with common forams, but burrowed HIGHLY CALC CLAY

CALC OOZE

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scattered, intermottling is present, particularly with a darker lamination 642-646 cm. firm, fairly sitty lutite, becomes very silty in lowest 10 cm where forems are abundant 5 Y 4/2 grades to 5/2 olive grays, and 6/2 light olive gray CALC 00ZE 615-677

5 Y 3/2 dark olive gray, grades to 4/2 olive gray numerous, smell, pale mottles throughout foram-rich, sapropelic lutite, becomes less silty and slicker. S, but severely distorted CALC GOZE

VISUAL CORE DESCRIPTION

Leg # Sta. 139 Core No. 6// Ship CHAIN Cruise

2

32

Poge 4 of 4

Detailed Description

Lithologic

5 Y 4/2 olive gray compon, small, subtle mottles throughout firm, very silty lutite with common forams 5, but disturbed CALC OOZE 705-725

5 Y 3/2 dark olive gray innumerable, fine microlaminations mulchy, sapropelic lutite; forams are numerous to abundant

725-781

5 Y 5/2 olive gray, grades to 5/3 olive extensive mathling is present from 740-775 cm; a 2 x 3 cm, dark olive gray clast is at 768 cm firm, somewhat sticky, silty lutite with forams more common at either end CALC OOZE

781-793

5 Y 3/2 dark olive gray very abundant, light brownish-gray mottles mulchy, firm, sapropelic lutite; forams are CALC GOZE

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10 YR 4/2 dark grayish brown, grades to 5/3 hues of brown, followed by 5/2 grayish brown mottling is fairly common only with the browns in the CALC OOZE

firm, somewhat slick lutite; forams are abundant near the top, but scattered in the remainder of the unit middle (813-855)

end of core

NOTE: the cyclic nature of the above combinations of lithologies should not be overlooked

VISUAL CORE DESCRIPTION

Page 1 of 1

Ship CHAIN Cruise 119 Leg 2 Sta 139 Core No 32 PG

Total Length 93 cm. Lat 32 50.07 W Long 32 58.27 E Depth 1381 cm. Lat 32 80.07 W Long 32 58.27 E Depth 1381 cm. Core condition Excellent Date Described 9 Feb 76 by T FARMER Physiographic location Eggs of Levant Publishmen, N of Act Soid Egypt; E M S Ship CHAIN Cr

Lithologic 60

32 PC

CHAIN

Ship:

Expedition 119

Station No. 135 Core No.

(leistrene

Detailed Description

10 YR 5/4 hues of yellowish brown small, subtle mottling is present to 15 cm; below this, bioturbation increases with several large, pale brown and dark brown burrows fairly silry, somewhat unconsolidated lutite; forams and pteropods are fairly common throughout

CALC OOZE

9

+07

1 4 4 core : 91 cm

10 YR 4/4 dark yellowish brown and 5 YR 3/3 dark reddish brown laminations of above colors silty lutite with common forams

GALC 002E
5 X 3/2 dark olive gray
innumerable, small, light brownish gray mottles with
several large burrows of the same color
somewhat silty, slickish, sapropelic lutite; forams
and pteropods are common

JOLG OGGE

10 YR 4/2 dark grayish brown, grades to 5/3 brown with minor occurrence of 6/3 pate brown (62-68 cm) innumerable, small mottles continue from above into rop 5 cm; mottling of primary colors is fairly common below that slick, unconsolidated, slightly silty lutite, becomes firmer and considerably siltier in lower 20 cm end of core

	'ial	Siliceous	Sadiolaria Binafoibas Sponqes	2				5			2	ננ	2	1				
1	Biogenous Material	-	0thers	2	5	6	2	-	œ	4	7	-	ä	2	2	4	4	9
*	nons	Sno	Discossters						Ħ			Ħ	7			1		
CES	1006	Calcareous	pteropods	2	77	-	-	7	4	-	tr	Ħ	7	1	S	-	tr	5
UNDAN	1	3	sfizzofonnsN	*	26	28	36	20	20	07	38	20	27	04	28	35	07	65
ESTIMATED ABUNDANCES (%)			Forams	3	tr	-	-	4	-	-	10	-	2	-	-	80	t	5
M			CJSA	99	19	33	09	70	36	54	84	78	69	99	30	20	55	27
3	Inorganic Material	0	Volcanic shards															
1	2	Silt & Sand	Zeolites															
1	dani	21.5	Micronodules	-	tr	Ħ	t								ä			5
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			SEDIMENT	calc ooze	calc ooze	calc ooze	calc ooze	highly calc clay	calc ooze	calc ooze	calc ooze	highly calc clay	highly calc clay	calc ooze	calc ooze	calc ooze	calc ooze	calc ooze
			LEVEL	1	18	112	173	283	321	423	787	557	165	620	099	716	808	875

32 PG

Core No.

CHAIN

Ship:

## VISUAL CORE DESCRIPTION

Page / of 3

Ship CHRIM Cruise 119 Leg II Sta. 141 Core No 33PL

Total Length 994 cm. Lat. 32.6 in Lang 32. 17.2 (E Depth 1141 Core. M. Core condition Excellent)

Core condition Excellent

Date Described (176916 by Burder)

Physiographic location Isis Ribbe Connex, N. of Part Said, EAST. MEDITERANDEN Lithologic

Detailed Description

1 1 2 1 1 1 1101 1 1000 tof 11 10 11 1, + 1111 1 1 1 11 1 4 1 11 1 1 17 1 1 Personene 3 Tal RHHRKP sabuods Biogenous Material BirsloibeA E 2mote id Others 13 -7 Discoasters 66 Calcareous ESTIMATED ABUNDANCES (%) tr preropods Station No. 139 Total Core Length 09 30 30 4 sfissolonneN Forams -7 7 Clay 33 57 09 36 Inorganic Material Silt & Sand Volcanic Zeolites 10 53 Micronodules Detrital grains tr tr Expedition 119 SEDIMENT calc ooze calc ooze calc ooze calc ooze TYPE Leg No. LEVEL

25

16 38

brown slight, irregular intermottling found scattered throughout moist, slick lutite with scattered forams, a few preropods 10 YR 5/2 grayish brown, grades to 6/3 pale brown common intermottling of colors above in transitional zone slick lutite with scattered forams, irregular lenses and inclusions of silty carbonate fragments in disturbed 186-291
CALC OOZE

OALC OOZE

10 YR 6/3 pale brown, grades to 6/4 light yellowish brown, to 5/2 grayish brown
common intermottling of the colors above in transitional firm, slightly silty lutite with scattered forams extensively mottled sapropel-like zone (5 Y 5/3) 255-265 164-186

- GAL OOZE

OME 10 YR 5/2 grayish brown homogeneous throughout, except for one thin, pale brown lamination at 1/6 cm smooth, slightly slity lutite with scattered forams and a silty lamination at basal contact 137-164
CALC OOZE
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SALC MOZ a bit more compact, slick lutite with scattered forams and pteropods varying hues of 10 YR 5/2 grayish brown and 6/3 pale zone core appears disturbed and unstratified 321-341 cm G, mottled 291-302
CALC 002E
2.5 Y 3/2 very dark grayish brown homogeneous throughout compact, silty lutite with abundant forams sapropel-like zone sapropel zone S, horizontal 0-137 CALC 00ZE CALC OOZE 302-386 1011 1 1 1 1

200

386-471

CALC GOZE

5 Y 3/2 very dark gray, grades to 10 YR 4/1 dark gray very extensive, light olive gray mottling and burrowing 386-405 cm, followed by fine microlaminations of the same color to end of unit-4/1 cm

somewhat coarse, malchy lutite with abundant forams and preropods is interbedded with slick, compact, dark gray lutite in the following zones: 446-448 cm, 461-471 cm firm, slightly silty lutite with an ash bed 503-505 cm, ashy zone 512-517 cm, and lithified, white, calcareous lumps scattered 538-543 cm, 566-580 cm S, irregular CALC GOZE WITH ZONES OF CALC GOZE/ASH 5 Y 7/2 light gray, grades to 10 YR 7/2 light gray common, light gray and white mottling found irregularly throughout 5 Y 3/2 dark clive gray extensive fine and common large mottling and burrowing 686-710 cm; microlamination 710-779 cm a few very fine, silty laminations are found near unit
basal contact: sapropel zone
5, mottled
471-478
CALC 002E Page 2 of 3 33PC CALC 002E 5 Y 3/2 very dark olive gray extensive, light olive gray mottling 607-627 cm, and microlamination 627-647 cm firm, compact, silry lutite with abundant forams sapropel zone common, light gray and dark gray mottling throughout firm, silty lutite with abundant forams S, irregular CALC 002E 5 Y 6/1 gray grades to 5/2 olive gray homogeneous throughout firm, smooth lutite with a few scattered forams Core No. Detailed Description 141 CALC OOZE GRADES TO CALC CLAY Leg II Sta. VISUAL CORE DESCRIPTION 10 YR 5/1 gray G, mottled S, mottled 611 199-109 989-149 Cruise 01001 101 1 and of wall gram 11 1 1 1 1111111 Lithologic 11 SEN Ship 118 7007 100 T 056 Pleistowene 8

Ship CHAIN Cruise 1/9 Leg I Sto. 141 Core No. 33 Pc

Detailed Description

Lithologic

686-779 (cont.)
firm, compact, silty lutite with abundant forams sapropel zone
S, horizontal
779-796
GAC 002E
10 YR 6/3 pale brown
faint, light gray mottling found throughout
forams
S, irregular
796-904
FOWN IN
end of core

100

#### VISUAL CORE DESCRIPTION

Page 1 of 1 Cruise 119 Ship CHAIN

3386

Tuise 119 Leg II Sto. 141 Core No 33/G Core No 141 Core No 141 Core No 141 Core No 141 Core No 141 Core Market Core No 141 Cor Physiographic location Esis Ribue Total Length 84 Core condition \_

Detailed Description

CALC GOZE WITH MOTTLES OF CALC GOZE WITH Mn MICRONODULES 10 YR 6/4 light yellowish brown large, very dark brown, Mn-rich burrows dominate unit 16-23 cm somewhat unconsolidated, slightly silty lutte with scattered forams 0-26

CaLC GOZE  $5~\mathrm{Y}~3/2~\mathrm{dark}$  olive gray innumerable, fine, light gray mottles and burrows S, irregular 26-57 Peisturno Log 

throughout unit moist, sMck lutite with scattered forams and pteropods S, irregular S7-84 GALC 00ZE

extensive, very pale brown mottling 73-82 cm moist, slick lutite with scattered forams end of core 10 YR 5/2 grayish brown

souther car: 84 cm

35

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Diatoms

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

119 CHAIN Expedition Ship:

33 PC 141 Station No. \_ Core No.

Leg No.

906 Total Core Length \_

E

ESTIMATED ABUNDANCES (%)

Biogenous Material
Calcareous

Discoasters pteropods Inorganic Material Silt & Sand

SEDIMENT

LEVEL

sitzzotonnsN Forams CISY Sprente

Selitosi Micronodules Detrital

20 \$ T, calc ooze TYPE

> 100 150 250 350 420 065

-

35 25 55

> 20 15 55 16 tr T 10 3 7 calc ooze calc ooze calc ooze calc ooze calc ooze

19 19 17 35 25 H 1 calc ooze/ash calc ooze calc coze calc coze

tr

calc ooze calc ooze calc clay

> 550 049 099

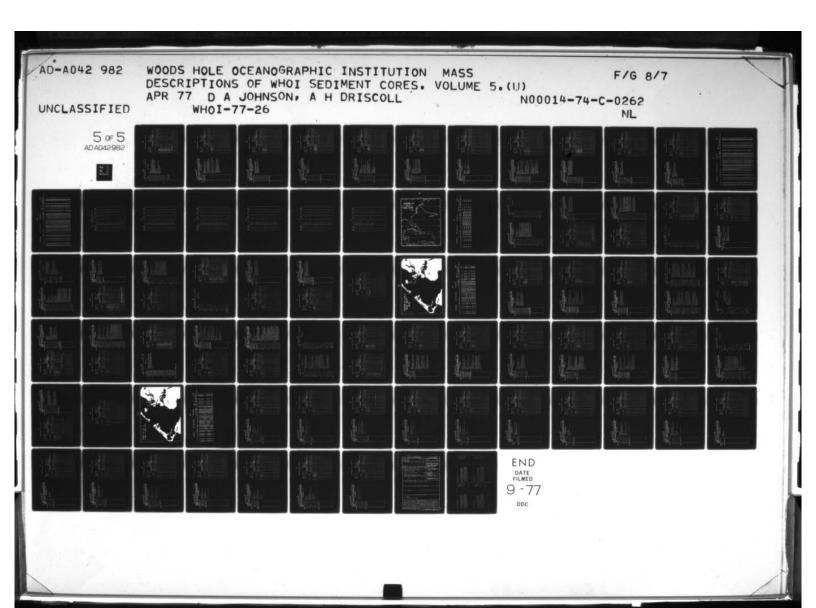
240

504

750 785 4

Page / of 2

Cruise //9 Leg 2 Sta /43 Core No 34 PC.  Cm. Lat 32° /73' M Long 33° 24 9° Depth 1108 cam m.  Executent  Onto Described MEB 24 by 7 Finance attack Part of Levant Puntodm, E.m.S.			0-226 HIGHLY CALC CLAY	5 Y 4/2 and 5/2 olive grays; various hues of above colors appear as gradational bands with 5/2 more prom-	inent below 125 cm mottling, generally of the darker colors in the paler	Dands, is scattered throughout somewhat slick, silty lutite, becomes more compact with depth; forams and preropods are few to scattered occasionally, faint olive yellow laminations or mottles appear in olive grays of this core  S 226-251 HIGHLY CALC CLAY	of 1/2 dark olive gray innumerable, small, link olive gray mottles throughout, and a few block forwith metalic common about	firm, slightly silty, sapropel-like lutite; pteropods and forms are scattered about	S 251-423	HIGHLY CALC CLAY  5 Y 4/2, grades to 5/2 olive grays, and 5/3 olive (310-	350 cm), and back to 4/2 mottling is generally localized in small clusters in	paler areas; abundant small mottles from lower unit in bottom 10 cm	firm, silty lutite, becomes more compact with depth, forams are scattered throughout; 386 cm - 5 mm dis-	turbed silt bed	423-434 HTGHIY CALC CLAY	5 Y 3/2 dark olive gray	firm, somewhat sticky, slightly silty lutite with few	Sorams	434-580 HIGHLY CALC CLAY WITH DETRITUS	5 Y 5/2 olive gray grades to 5/3 olive in lowest 25 cm very few, subtle mottles, except in bottom 25 cm where	they are abundant, small, dark olive gray firm, slightly silty to silty lifts, forans and niero-	pods are few; thin send lense at 437 cm			
Ship CHAIN Cruise 1/9 Total Length 842 cm. L Core condition EXECLENT Physiographic location SMALES		ļ	1	1 1	1 1 1 1	, , , , , , , , , , , , , , , , , , ,	1011	1	1 1 1	1	3 1 3 0 1	1	1 1 1	to	1 6		1 1	1 1	+ + + + + + + + + + + + + + + + + + + +	1	101	1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1	T
		Pleistrene																							
					11	A M K H H K			00	12	-	1	- 1					T		1	-	T	T	1	1
					eous	Sponges				-	+	-	-					-		+	+	+	+	+	1
			E		Siliceous	Diatoms												+				+	+		1
					teria	Sheris	- 00	5	5	15	-			-				-	+	+	+	+	+	+	
			84		N S	Discoasters	- "		- 1											+	T	+	+	-	1
RES	9			S (%)	Biggenous Material	Pteropods	3	3	2	4	+	-	-				-		-	+	+	+	+	+	1
NT CO	33 PG	141	ŧ	ABUNDANCES (%)	Biggenou	sfissofonneN	55	77	20	35										+	T	T	T	T	
EDINE		1	Length	ABUN		Porams	2	5	9	00	+								-	$\dagger$	+	+	+	+	1
.i.		on no	Core	ESTIMATED	+	Clay	25	28	28	22	-									1	+	+	+	T	1
6.H.0	Core No.	Station No.	Total Core	ESTI	[e]	spagues	-		-	+		+	+					-	+	+-	+	+	+	+	1
- 5					Inorganic Material Silt & Sand	Volcanic			-	-	+			-			-	-	-	+	+	+-	+	+	1
PT10					t &	Zeolites	-	15	T.		+	-	-				-	+	+	+	+	+	+	+	-
ESCRI	1				Sil	grains	2		-	-	+	-	-	-			-	-	+	+	+	+	+	+	+
20		1			-	Detrital	2	\$ 2	-	6															
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES	CHAIN	Expedition 119	No. 2			SEDIMENT	calc ooze	calc ooze with Mn micronodules	calc coze	calc ooze															
	Ship:	Expe	Leg No.			LEVEL	1	21	07	83															



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VISUAL CORE DESCRIPTION

Page 2 of 2

Leg 2 Sta. 143 Core No. 34 PC Ship CMAIN Cruise 119

Detailed Description Lithologic Log

HIGHLY CALC CLAY

5 Y 3/2 dark olive gray, grades very gently to 4/2

6 Y 3/2 dark olive gray, grades very gently to 4/2

6 Live gray
intensely burrowed and mottled in top 10 cm; below,
there are generally few mottles, but immumerable,
fine microlaminations: 648 cm - thin, black, Manganiferous lense extends across half of core
firm, compact, slightly slity sapropelic lutite with
forams common; becomes smoother as color pales
very gradetional
654-754
HIGHLY CALC CLAY
5 Y 4/2 olive gray
no mottling
firm, slick lutite with scattered silt lenses and
clasts, and several detrital silts of 2-5 cm
754-842
HIGHLY CALC CLAY WITH DETRITUS
filow in of above
end of core 

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178/4 and 4 core. 842

11006

1 517

Pleythone

1 008

664

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. CHAIN Expedition 119 Ship:

Leg No. \_

842 Station No. 143 Total Core Length \_\_

34 PC

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-	-,		пики				20	2		4		4		2		-	-	- 1	- 1	
		Sn	Sponges																	
		Siliceous	Radiolaria																	
	P	Sil	Smotsid																	
	Biogenous Material		2 start10	10	18	10		2	80	-	10	Ħ	Ħ	13	15	22		T		
2	OUS P	Sni	Discoasters								:									
12	iogen	Calcareous	Pteropods		-	-		5	7	5		i.								
ESTIMATED ABUNDANCES (1)	80	Cal	2 f i 2 2 0 1 on n 5 M	18	10	15	35	20	17	27	10	25	נ	3	Ħ	5				
D AB			2m6707	ä	5	ظ		-	2	-	tt	-		T.		t				
F			Clay	62	19	1	15	75	19	67	3	70	ב	72	2	19		T		
G	Inorganic Material	P	Volcanic shards																1	
	C Mat	Silt & Sand	zej i fosz																	
1	gani	ilt	Micronodules			1							1003	ţ		Ħ		T		
1	Ino		Detrital grains	01	10	10		Ħ	10	Ħ	16		Ħ	10	83	tus 16		1		
			SEDIMENT	highly calc clay	highly calc clay	highly calc clay	calc ooze/ pyrite	highly calc clay	highly calc clay	highly calc clay	highly calc clay w/detritus	highly calc clay	Mn micronodules	highly calc clay	detritus	highly calc clay with detritus 16				
			LEVEL	1	100	188	240	243	340	430	530	593	648	869	740	841				

Page / of 1

Ship CHAIN Cruise 119 Leg 2 Sto. 143 Core No. 34 PG.
Total Langth 57 cm. Lat 32°17.3 W Long 33°24.9 % Depth 1108 corn.m.
Core condition \$\overline{\text{KELLENT}}\$ bate Described 10 Feb 16 by FARMER.
Physiographic location \$\overline{\text{MALLOW}}\$ Part or KEVANT PLATFORM FMS

Detailed Description 0-15 CALC 00ZE 1 1 1 10 - 0 - OL OL me of one: 51 Lithologic 607

10 YR 5/3 brown, becomes somewhat paler with depth subtle martbling between hues of brown somewhat unconsolidated, slightly slity lutite, with scattered pteropods and forams

CALC COZE AND CALC COZE WITH HM HICRONODULES
10 YR 6/3 pale brown, and 3/3 several huses of dark
brown; the two colors are mixed and marbled; pale
brown is dominant and dark brown is Mn rich marbling
slightly slity lutite with scattered forams

001

10 YR 5/2 grayish brown, grades to 4/2 dark grayish brown small, light brownish gray mottles are common in bottom near lower unit slickish, slightly silty lutite with few forams CALC OOZE

CALC OOZE

funumerable, small, light brownish gray mottles, and several larger ones scattered about; a large burrow from above extends several can into this unit; a well-preserved lamination in same color as mottling is present at 46.5 cm slightly, salty, sapropel-like lutite, forams vary from few to abundant

999

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

50 13% Total Core Length Station No. \_ Core No. CHAIN Expedition 119 Ship: Leg No.

E

	_	-	мини			N	
		ST	Spondes				
		Siliceous	Radiolaria				
	lai	Sil	Diatoms				
	ater		279410	n	4	2	
6	Biogenous Material	Sno	Discoasters				
CES (	ioger	Calcareous	Pteropods	-	Ħ	1	
UNDAN	8	3	2 lizzo Tonn & M	99	45	30	
ESTIMATED ABUNDANCES (%)			Forams	Ħ	Ħ	tt	
IMAT			CJay	30	36	65	
ES	Material	P	Volcanic sbands				
			Zeolítes				
	Inorganic	Silt	Ri cronodul es	Ħ	15		
	Ino		Detrital anterg	Ħ	5	tt.	
			SEDIMENT	calc ooze	calc ooze w/Mn micronodules	calc ooze	
			LEVEL	1	25	67	
-	-			-	-	-	 -

Page / of 1

Ship <u>Chair</u> Cruise //9 Leg 2 Sto. //5 Core No / AC.

Total Length 27 cm. Lat 3/° 5/.87 N Long 22 33.6/ E Depth 3/8 cm. R.

Core condition <u>Excelent</u> Data Data Described 3 Feb 74 by T FARMES
Physiographic location <u>Bassuit</u> Escaling T off Peat Sais, Ems.
Lithologic

Newhere -

Detailed Description

0-271
HIGHLY CALC CLAY GRADES TO SLIGHTLY CALC CLAY
2.5 Y 4/2 dark grayish brown grades very smoothly to
3/2 very dark grayish brown (~ 200 cm)
no mottling
silty, unconsolidated lutite grades gently to a slick,
smooth lutite below ~100 cm; several sea urchin
fragments are present at 23 cm
end of core

899

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 1 KG CHAIN Expedition 119 Ship:

Leg No. \_

271 Total Core Length \_\_ Station No. 145

5

	15	Sponges	tr t				
	ceor	Rediolaria					
9	511	2 smots i O					
ateri		0thers	7	8	1	2	
ous P	Sn	Discoasters					
iogen	careo	pteropods	2	ť	Ħ		
80	Cal	2 [ t 2 2 0 7 on n 5 M	16	23	80	ţ	
		Forams	-	-	ţ	7	
		Clay	7.1	72	91	93	
erial	P	Volcanic sbrads					
c Mat	& San	Sealflosi					
raani	ilt	Ni cronodul es	1	ä		4	
Inoi		Detrital Salari	2	1	Ħ	Ħ	
		SEDIMENT	highly calc clay	highly calc clay	calc clay	slightly calc clay	
		LEVEL	1	100	200	270	
	Biogenous Materi	Inorganic Material Biogenous Material Silt & Sand Calcareous Silteous	SEDIMENT  TYPE  Micronodules  Site Sand  Site Sand  Site Sand  Site Sand  Solites  Calcange Canada  Nannofosatis  Nannofosatis  Nannofosatis  Nannofosatis  Others	SEDIMENT SEDIMENT SEDIMENT STATE Sand STATE Sand STATE Sand STATE Sand STATE Sand STATE Sand STATE Sand STATE Sand STATE Sand STATE SAND STATE	SEDIMENT  SEDIMENT  TYPE	SEDIMENT  SEDIMENT  SEDIMENT  TYPE	SEDIMENT TYPE TYPE TYPE TYPE TYPE TYPE TYPE TYP

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Meismone and 4 core - 271

Poge 1 of 1

Ship CANIN Cruise 119 Leg 2. Sto. 154 Core No. 8 GC.
Total Length 131 cm. Lat. 21. 455 N. Long. 32. 0.1. E. Depth St. car. B.
Core condition confident Date Described 23 Set 75 by H. Farese.
Physiographic location Characherists States NAM. of Par. Sala, Espir : Entrew. Ma.

Lithologic Residence

Detailed Description

1 3 1

Mistacene Seaton of core: 132

SeT

0-132
HIGHLY CALC CLAY WITH DETRITUS
10 YR 3/3 dark brown
no mortifing
very uniform slick lutite, few bioclastic grains
end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

		-			мужины		-	-							
				SI	Sponges										
				iceou	Radiolaria	ä									
	E C		-	Sil	Ofatoms										
	32		teri		279A10	17	20	20							
1	1	2	ous P	SUI	Discoasters					5					
		CES (	iogen	care	Pteropods					h de					
154	lgth .	MDAN	8	Sal	elizzotonnsM	-	5	2		s with					
9	e Ler	D ABI			Forams	5	7	2		rease					
ion !	9	IMAT			Clay	65	09	09							
Sta	Tota	ES1	erial	P	oinsoloV sbrads					tritu					
					Zeolites					of de					
			rgani	Silt	Micronodules					size					
1			Ino		op (61i1390)	=/%	2/2	2/2		grain					
119	2				TYPE	ly calc	ly calc	ly calc							
itio						higi cla	high	high clay							
Exped	Leg N				LEVEL	1	65	131							
	Station No.	119 Station No	2	2 Total Core Length 132  ESTIMATED ABUNDANCES (#)  Inorganic Material Biogenous Miterial	2 Total Core Length 132  ESTIMATED ABUNDANCES (#)  Inorganic Material Biogenous Miterial Silt & Sand Calcareous S	Station No. 154  No. 2  Total Core Length  Total Core Length  Total Core Length  Total Core Length  Total Core Length  Total Core Length  ESTIMATED ABUNDANCES (%)  SEDIMENT  SEDIMENT  TYPE  TYPE  TYPE  TYPE  Spondes  Sp	No. 2  Total Core Length 132 cm  ESTIMATED ABUNDANCES (#)  Inorganic Material Biogenous Miterial Silt & Sand Silt & Sand Carecous Silt & Sand Carecous Miterial Silt & Sand Carecous Miter	No. 2  Total Core Length 132 cm  ESTIMATED ABUNDANCES (#)  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SIT & Sand Calcarous Miterial  SIT & Sand	No. 2  Total Core Length 132 cm  ESTIMATED ABUNDANCES (\$)  Inorganic Meterial Silt & Sand  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SILT Calcareous  SILT Calca	No. 2  Total Core Length 132 cm  ESTIMATED ABUNDANCES (\$)  Inorganic Meterial Sint & Sand  TYPE STATE ABUNDANCES (\$)  Inorganic Meterial Sint & Sand  Inorganic Meterial Sint & Sand  Calcareous Siliceous Sil	No. 2  Total Core Length 132 cm  ESTIMATED ABUNDANCES (\$)  Inorganic Meterial Silt & Sand  Nighty calc Lisy w/detritus 5  Lisy w/detritus 15  Estimate Core Length 132 cm  ESTIMATED ABUNDANCES (\$)  ESTIMATED ABUNDANCES (\$)  Biogenous Meterial Silt & Sand  Calcareous Silt	No. 2  Total Core Length 132 cm  ESTIMATED ABUNDANCES (\$)  Inorganic Meterial Silvens  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SEDIMENT Opaques  SITUATED ABUNDANCES (\$)  SITUATED OPAGE  Calcareous  SITUATED OPAGE  Calcareous  SITUATED OPAGE  Calcareous  SITUATED OPAGE  CALCAREOUS  SITUATED OPAGE  CALCAREOUS  SEDIMENT OPAGE  SITUATED OPAGE  CALCAREOUS  SEDIMENT OPAGE  SITUATED OPAGE  CALCAREOUS  SEDIMENT OPAGE  SITUATED OPAGE  SEDIMENT OPAGE  SITUATED OPAGE  CALCAREOUS  SITUATED OPAGE  CALCAREOUS  SEDIMENT OPAGE  SITUATED OPAGE  CALCAREOUS  SEDIMENT OPAGE  SITUATED OPAGE  SITUATED OPAGE  SITUATED OPAGE  SITUATED OPAGE  SITUATED OPAGE  SITUATED OPAGE  SITUATED OPAGE  SITUATED OPAGE  SITUATED OPAGE  SITUATED OPAGE  SITUATED OPAGE  SITUATED OPAGE  SITUATED OPAGE  SITUATED OPAGE  SITUATED O	No. 2  Total Core Length 132 cm  ESTIMATED ABUNDANCES (#)  SEDIMENT Opeques  SEDIMENT Opeques  SEDIMENT Opeques  SEDIMENT Opeques  SEDIMENT Opeques  SEDIMENT Opeques  SIT & Sand  Calcareous Miterial  Biogenous Miterial  Sit & Sand  Calcareous Miterial  Sit & Sand  Calcareous Miterial  Sit & Sand  Calcareous Miterial  Sit & Sand  Calcareous Miterial  Sit & Sand  Calcareous Miterial  Sit & Sand  Calcareous Miterial  Sit & Sand  Calcareous Miterial  Sit & Sand  Calcareous Miterial  Sit & Sand  Calcareous Miterial  Sit & Sand  Calcareous Miterial  Sit & Sand  Calcareous Miterial  Sit & Sand  Calcareous Miterial  Sit & Sand  Calcareous  Sit & Sand  Calcareous  Sit & Sand  Calcareous  Sit & Sand  Calcareous  Sit & Cancareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Sit & Cancareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Calcareous  Sit & Cancareous  Cancareous  Cancareous  Sit & Cancareous  Cancareous  Sit & Cancareous  Cancareous  Sit & Cancareous  Cancareous  Sit & Cancareous  Sit & Cancareous  Cancareous  Sit & Cancareous  Cancareous  Cancareous  Sit & Cancareous  Cancareous  Sit & Cancareous  Cancareo	No. 2  Total Core Length 132 cm  ESTIMATED ABUNDANCES (#)  SEDIMENT SPECIAL SITE STAND ABUNDANCES (#)  SEDIMENT SPECIAL STAND	No. 2  Total Core Length 132 cm  ESTIMATED ABUNDANCES (\$)  Inorganic Meterial Silveous Silveo

Total Length 137 cm. Lat. 31° 446.1 M. Long. 31° 472.2 F. Depth 50 cm. Core condition 4446.4 M. Long. 31° 472.2 F. Depth 50 cm. m. Core condition 4446.4 M. Dote Described 24.547 75 by 11 Finemest Physiographic location (mineral Skeff Niv. d. Part Said. Egypt. Eartern Med. Lithologic

Detailed Description Pleasmene =

CALC CLAY
10 YR 3/3 dark brown
no mottling
soft, slick, slightly silty lutite with few forams occasionally concentrated G 57-97 

HIGHLY CALC CLAY WITH DETRITUS
2.5 Y 3/2 wery dark gray brown
no mottlings
slightly slity lutite, scattered forams
65-68 sharp band of above unit
97-103

SHELL HASH IN HIGHLY CALC CLAY WITH DETRITUS 2.5 Y 3/2 very dark gray brown (lutite fraction) no mottling shell hash in lutite matrix large rounded limestone fragment, 2 x 3 cm (in working half)

1 1

- T 135

111

S 103-137
5 X 3/2 dark olive gray
5 X 3/2 dark olive gray
no motiful agray
103-111 large disturbed section with 1/2 of core missing;
end of core

- 135 - 7

Pleasurence 137 and of core

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

					S sep	uods	2	#								
					sinelo	Radi										
		E .		٦	₹ swo	tsiO										
		7		Material	su	0410	80	20	9							
	1	137	26	S	2 system	os ř0										
			SES (	Biogenous	shoqo sboqo	pter		Ħ								
9 00	156	ngth	ESTIMATED ABUNDANCES (%)	8	S sitesoto	Mann	-	2	1							
1	9	e Le	D AB		Sm <b>&amp;</b> 10	4	Ħ	3	Ħ							
Core No.	Station No.	Total Core Length	IMATE		Clay		78	57	80							
So	Stat	Tota	EST	Material	anic shashds	o fov						T				
				Inorganic Mater	Ser Seri	Loaz				T	Ī					
				gani	sə[npouo	Micr										
-	1			Inor	opaques restrantes	Detr	4		2/0							
CHN	119	2					lay	highly calc clay w/detritus	lay							
	Expedition_				SEDIMENT		calc clay	highly clay w/	calc clay							
Ship:	Exped	Leg No.			LEVEL		1	72	136							

-

Page / of 1

Lithologic

HIGHLY CALC CLAY
5 Y 4/3 olive
homogeneous throughout
slick, slightly slity lutite with very few forams
5, mottled contact Detailed Description 

HIGHLY CALC CLAY GRADES TO SLIGHTLY CALC CLAY

Y \$/3 olive grades gently to 2.5 Y 4/2 dark grayish
brown (~ 90 cm), followed by 3/2 very dark grayish
brown
small, olive mottles are scattered from upper contact
down to ~66 cm
slick, slightly slity lutite, gently becomes slicker,
with very little silt: there are few forams above
~ 110 cm, but they are scattered about in varying
abundance below that

and A con- 256

Messburg

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 2 KC Station No	Total Core Length 256 cm	ESTIMATED ABUNDANCES (%)	rial Biogenous Materia	Silt & Sand Calcareous Siliceous	Micronodules Zeolites Volcanic Shards Clay Forams Nannofossils Discoasters Others	72 tr 19 1	1 21 1 7	ä			
Ship: CHAIN Expedition 119	No2		Inor		SEDIMENT TYPE TYPE Festivised	highly 2		highly tr	slightly tr		
Ship: Exped	Leg No.				LEVEL	1	50	150	255		

Total Length 20 cm. Lat. 51° 45.3 N Long. 31° 34.9 E Depth 44 cm. m. Core condition Excellent Date Described to Feb 74. by T. Finance L. Physiographic location Damiestra. Branca or Nue. Come. East. May. Sea Lithologic

Detailed Description 4 30 4

Plasterone

O-1
CALC OOCE
no mottling
shell hash of well-preserved shells up to 1 cm
S
1-20
CALC OOCE
10 YR 3/2 very dark grayish brown
no mottling
shell hash with small amount of lutite matrix, lutite
T increases in bottom 3 cm
end of core **G**4

8

50

SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

10 oc Station No. Core No. CHA IN Expedition 119 Ship:

CE

Total Core Length

Leg No.

Biogenous Material
Calcareous ESTIMATED ABUNDANCES (%) Inorganic Material Silt & Sand

M H H M K H	-	 								
Spondes	1									
Radiolaria										
2mots t0										
0£hers	10									
Discoasters										
Pteropods	œ									
2   i 220 Tonn & M	2									
2m6Y07	2									
CJSY	09									
Volcanic shards										
Zeolítes										
Micronodules										
Detrital animap	9									
SEDIMENT	calc ooze									
LEVEL	19									
		 	 					 	-	-

Page / of 1

Ship <u>Chairi</u> Cruise 1/2 Leg 2 Sto. 183 Core No. 3KC.
Total Length 25.3 cm. Lat 32° 06.3 K Lang 30° 58.0 °C Depth 508 car. m.
Core condition <u>Excertent</u> Date Described 13.65 % by T. FARMES.
Physiographic location East. M.E. Sta. Nite Cove. 63.77/M. Can't Meditin Sign. Lithologic

HIGHLY CALC CLAY 10 YR 5/2 grayish brown and 2.5 Y 4/2 dark grayish CALC CLAY
2.5 Y 4/2 dark grayish brown
homogeneous, save slight darkening with depth
firm, slightly silty luthte with very few forams
5, mottled Detailed Description 1 0-18 11011 1111 4000 441 

extensive, dark grayish brown intermottling at upper unit contact compact, slightly silty lutite with a few forans 6, mottled

compact, somewhat mulchy, slightly silty lutite with very few forms extremely well-preserved, large pieropod test found  $_S$  at 83 cm (removed from working half) CALC CLAY
1.5.5 % 3/2 very dark gray brown
1.0.1 mnumerable, fine, light grayish brown burrows and
mottles throughout the sapropel

1

1

end of conc. 253 14

Personene

GALC CLAY
5 Y 3/2 dark olive gray grades to 2.5 Y 3/2 very dark
gray brown
virtually homogeneous throughout; only a few, faint,
scattered, irregular mottles are found
very slightly silvy luttee
very sharp, inclined 12.5°

300

207-253

5 Y 5/2 olive grades to 4/2 olive gray scattered, faint, fine, light olive gray (sapropellike) burroes firm, compact, silty lutter grades to stiffer, even more compact, extremely silty lutte end of core CALC OOZE WITH DETRITUS

829

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

E 253 Total Core Length \_\_ Station No. 183 Core No. CHAIN Expedition 119 Leg No. \_\_ Ship:

			шищини				- 00		-			-		-	-	-	-		 -
		Sr	Spondes						ä										
		Siliceous	Radiolaria																
	a1	511	2mots id																
	Biogenous Material		0thers	-	7	8	4	\$	52										
3	Suc	S	Discoasters																
ES (	oden	Calcareous	Pteropods		Ħ	Ħ		4	2		1		T						
NDANC	8	Cal	slissotonnsN	2	24	8	2	2	4						1				
ESTIMATED ABUNDANCES (%)			Forams	2	1	7	Ţ,	-	-		1		T		T				
IMATE			Clay	16	74	88	91	12	36										
EST	erial	Silt & Sand	Volcanic																
	CMat	& San	2eolites																
	gani	ilt	Mi cronodul es	9												T			
	Inor		Detrital grains	Ħ	ħ	t	6	17	5				T	T					
=	_							with	+	+	+	+	+	+	+	+	+	+	-
			SEDIMENT	calc clay	highly calc clay	cale clay	calc clay	calc ooze detritus	calc ooze										
			LEVEL	1	30	99	145	208	252										
										1		- 1	-			1	1	1	

Page / of 1

Ship CHRIM Cruise IR Leg II Sta 185 Core No 4F.C.
Total Length 267 cm. Lat. 31°549" N Long. 30'164" E. Depth 21 m. wvr.
Core condition Extended NIE tone. Date Described 2F6516 by Study.
Physiographic location NIE tone. OFF NESTMORDER A CONTINENTAL SHEEF

Penkene. Lithologic

Detailed Description

0-267

SLIGHTLY CALC CLAY WITH DETRITUS AND BEDS OF DETRITUS
10 YR 4/2 dark grayish brown
slightly darker, silty laminations at the intervals
below; faint, irregular, dark gray mottling 0-110 cm
smooth, compact lutite with numerous, inclined, silty
beds and lenses; the dominant ones: 18-19 cm, 2829 cm, 38-39 cm, 46-47 cm, 62-65 cm, 67-68 cm, 121122 cm, 166-167 cm, 181-182 cm, 210-211 cm, 249-250 cm
end of core

1

1

sadof un! 267 um

Pleistacanc \_ 9

089

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

185 Station No. \_ Core No. CHAIN Expedition 119 Ship:

Total Core Length 267

Leg No. \_

E

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		NS.	səbuods	Ħ		3?	2	ä	Ħ									
-		Siliceous	Radiolaria															
	٦	Sil	smots i O						tr									
	Biogenous Material		others	4	2	3	2	6	3									
1	Snor	Snc	Discoasters															
	oger	Calcareous	Pteropods															
	8	Cal	2 [ † 2 20 Tonns M	3	Ħ	t	-	-	1					T				T
ESTIMIED ABUNDANCES (*)			Rorams		Ħ	ä			ä									T
1			Clay	11	=	33	75	88	72									
3	erial	P	Volcanic shards		4	9	53	3	Ħ									
	Inorganic Material	Silt & Sand	sətiloəZ															T
-	gani	Silt	Ni cronodul es	Ħ	Ħ				Ħ		1900				T			T
1	Ino		Detrital grains	16	80	55	23	9	22									
1				9		_	- 8		8	_	 		_	1	-	-	-	L
			SEDIMENT	slightly calc clay w/detritus	detritus	slightly calc clay/detritus	slightly calc clay w/detritus	slightly calc clay	slightly calc									
			S	slig clay	detr	sIIg clay	slig clay	slig	slig									
			LEVEL	1	19	63	100	200	251									

Page / of /

Ship cuein Cruise 119 Leg II Sto. 187 Core No. 5VC.
Total Length 12 cm. Lat. 31º 19.0 No. Long. 23º 44.9 E. Depth Communic.
Core condition EXCENTENT.

Physiographic location NILELANE: continental substruction of ALES IN by Lithologic Detailed Description

0-108 Physiogra, Lithologic Log + *բ բ բ բ բ* 

1 1 1

Pleistreme

endofure: 108m

CALC 002E

5 Y 7/1 light gray, grades to 2/2 light gray
homogeneous throughout
stiff, compact, sliry lutte with scattered forams,
shell fragments (pelecypod) and lithified, white,
calcareous lumps; a few well preserved coral structures
are also present
end of core 1 

685

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

5 KC Station No. 187 Core No. 119 CHAIN Expedition Ship:

108 Total Core Length

Leg No.

E C

sabuods Biogenous Material
Calcareous Siliceous Radiolaria emoterd Others 55 H Discoasters ESTIMATED ABUNDANCES (%) pteropods sfissofonnsN Forams Clay 36 Volcanic Inorganic Material Silt & Sand Zeolites Micronodules Detrital SEDIMENT TYPE calc ooze LEVEL

. . . . .

5 5 39 35 calc ooze calc ooze 108 50

20

55

Page 1 of 1

Ship CHAIN Cruise 1/9 Leg II Sto. 187 Core No. 12 GC.

Total Length 96 cm. Lat. 31,16.0 N Long. 29, 141.2 © Depth 60 m. Carr.

Core condition EXELLENT Date Described 1 Sept 16 by H. Pricence.

Physiographic location EGYPTIAN CANTINENTAL Seels - Nile CONE

Lithologic

Detailed Description Pluspaces 1 1 1 1

× 1

0-96
CALC OOSE
10 YR 7/1 light gray
several medium size, pale marbles are apparent from
48-61 cm
firm, plastic, silty lutite with foram-size, biogenic
material common; several small shells (pelecypods)
are scattered about
3 large pieces of coral span the core liner at 23-27 cm,
53-55 cm, and 73-78 cm

end of core

भूगा

5

end of core:

Peispeene

արարավապատիակապատի

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Ship:	Exped	Leg No.				LEVEL
CHN	Expedition 119	lo. II				SEDIMENT TYPE
	1			Ino		[6117190 salerp
				Inorganic Materia	Silt & Sand	sa l'ubonoro in
				c Mat	& San	. səliloəz
3	Sta	Tot	ES	erial	P	oleanic shaeds
Core No.	Station No.	Total Core Length	ESTIMATED ABUNDANCES (%)			Clay
- 1	No.	re Le	ED AB			Forams
12 GC	18	ngth	UNDAN	80	S	sfizzotonnsk
9	7	6	CES (	iogen	Calcareous	spoqonat
	1	96	2	Sno	sno	shat seoss to
				Biogenous Material		shers.
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					Siliceou	Statiolatia
					3-	

		175										
15	t	1										
BS												
10	5											
10	35	07	35									
10												
bd		-	5									
N	2	2	2									
1	2	2	2									
1	09	54	09									
A												
ez	1	1										
W	1	1	1	1			-			-		-
Pa	-	1	1	1								
1	1	-										-
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NILE DELTA UNDERWAY and GRAB SAMPLES CHAIN 119, LEG 2

Number	Number	Color	Clay	e coros	%corg	corr. m.
7	U/W 1	10 YR 7/2 light gray	56-28-16	98	0.	
8	U/W 2	10 YR 7/2 light gray	42-36-22	83	w.	
m	U/W 3	10 YR 5/3 brown	34-32-34	11	w.	223
4	n/w 1	10 YR 6/2 light brownish gray	25-44-31	7.1	5.	125
5	U/W 5	10 YR 7/1 light gray	24-50-26	62	5.	99
9	9 M/n	10 YR 8/1 White	94-3-3	96	1.0	777
7	L M/N	10 YR 5/8 yellowish brown	1-0-66	95	1	25
ω	0/w 8	10 YR 6/2 light brownish gray	59-23-19	92	5.	14.3
6	6 M/N	10 YR 5/3 brown	36-2-2	70	٦.	33
30	U/W 10	10 YR 4/3 brown	27-40-33	52	.7	136
31	U/W 11	10 YR 3/3 dark brown	5/58/	22	1.1	73
32	U/W 12	10 YR 5/3 brown	71-21-8	9	2.	30
34	U/W 14	10 YB 4/4 dark yellowish brown	89-7-4	12	7	77
35	U/W 15	10 YR 5/4 yellowish brown	99-1-0	.7	0.	10
36	GR 1	10 YR 3/2 very dark grayish brown	1-60-39	4	·-	

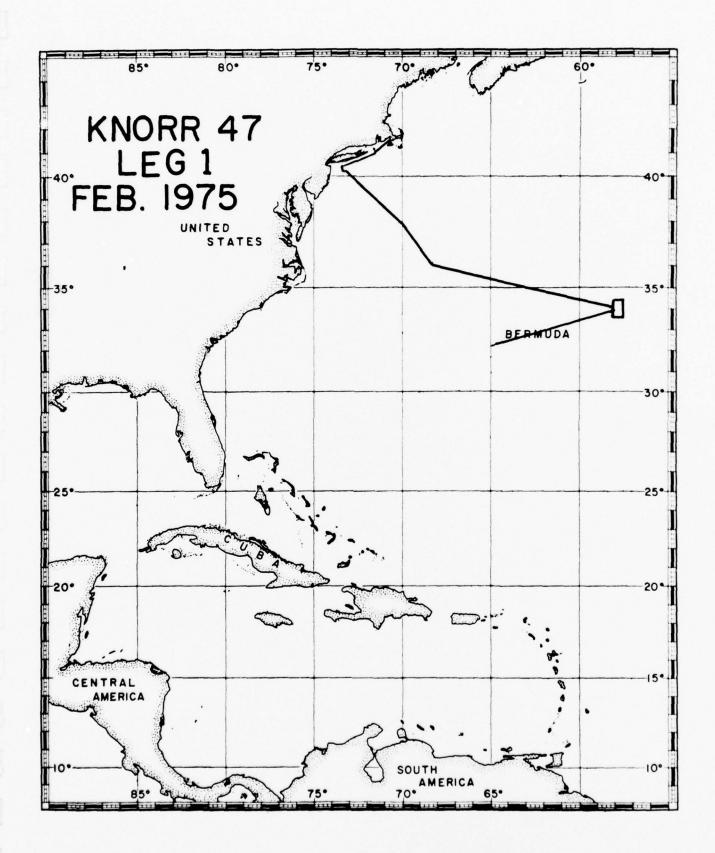
Station	Sample	Color	Sand-Silt- Clay	% caco <sup>3</sup>	%Corg	Depth corr. m.
38	GR 2	10 YR b#3 brown	2-9-26	1	0	9
89	GR 3	10 YR 3/2 very dark grayish brown	1-59-40	5	6.	0.
7	GR 4.	10 YR 3/2 very dark grayish brown	16-54-30	7	9.	17
274	GR 5	5 Y 3/2 dark olive gray	9-56-35	9	1.0	53
4.5	GR 6	10 YR 3/2 very dark grayish brown	70-16-14	85	w.	94
174	GR 8	10 YR 4/2 very dark grayish brown	45-29-26	33	9.	15
841	GR 9	10 YR 4/2 very dark grayish brown	58-16-25	99	9.	134
67	0/W 16	2.5 Y 5/2 grayish brown	46-27-27	84	9.	148
20	U/W 17	10 YR 4/4 dark yellowish brown	94-3-2	88	m.	09
13	U/W 18	10 YR 3/2 very dark grayish brown	5-54-41	12	1.0	53
52	17 × 19	10 YR 3/2 very dark grayish brown	8-67-25	6	o,	38
53	U/W 20	10 YR 3/2 very dark grayish brown	0-31-69	5	1.4	₹.
54	U/W 21	10 YR 3/2 very dark grayish brown	1-43-56	CV.	6.	æ
55	GR 10	10 YR 3/2 very dark grayish brown	1-55-44	5	1.1	п

Station Number	Sample	Color	Sand-Silt- Clay	% CaCO <sub>3</sub>	%Corg	Depth corr. m.
58	U/W 22	10 YR 4/3 brown	59-34-7	2	Ţ.	25
65	U/W 23	10 YR 4/2 dark gray brown	3-70-27	16	1.1	149
98	GR 11	10 YR 5/6 yellowish brown	98-0-2	15		142
87	GR 12	10 YR 4/2 dark grayish brown	27-42-31	п	0.	35
89	GR 13	10 YR 3/3 dark brown	4-7-68	CU	0.	9
06	U/W 24	5 Y 7/2 light gray	98-1-1	0	0.	80
16	U/W 25	10 YR 3/2 very dark gray brown	36-48-16	4	5.	13
93	U/W 26	10 YR 6/h light yellowish brown	97-1-2	0	o.	22
76	U/W 27	10 YR 4/4 dark yellow brown	84-9-7	35	5.	37
96	U/W 29	10 YR 4/2 dark gray brown	67-20-13	63	• •	75
76	U/W 30	10 YR 4/2 dark gray brown	47-29-24	147	9.	103
96	U/W 31	10 YR 4/2 dark gray brown	31-32-37	143	9.	157
66	U/W 32	10 YR 4/2 dark gray brown	43-28-29	51	9	139
100	U/W 33	10 YR 4/2 gray brown	60-21-19	99	5.	73
101	U/W 34	10 YR 6/4 light yellow brown	99-0-1	п	0.	1,7
102	U/W 35	10 YR 2.5/1 black	30-25-45	ω	7.	39
103	0/₩ 36	5 Y 3/2 dark olive gray	26-43-31	61	1.0	32
				-	-	

Station	Sample	Color	Sand-Silt- Clay	% caco <sub>3</sub>	%Corg	Depth corr. m.
104	7E W/n	10 YR 5/6 yellowish brown	99-0-1	m	0	15
106	GR 14	10 YR 4/2 dark grayish brown	88-9-3	Т	7.	90
106	GR 15	10 YR 4/2 dark grayish brown	4-6-78	т	7:	80
108	GR 16	10 YR 4/2 dark grayish brown	61-20-19	13	e.	19
111	GR 17	10 YR 4/2 dark grayish brown	75-15-10	72	10	61
112	GR 18	10 YR 5/3 brown	91-3-5	76	m.	93
113	17/4 38	10 YR 4/2 dark gray brown	11-28-61	19	ε.	166
146	U/W 39	10 YR 4/3 brown	82-9-9	. 83	0.	26
147	GR 19	10 YR 4/2 dark gray brown	54-25-21	39	9.	72
148	GR 20	10 YR 4/2 dark gray brown	3-40-57	7	1.0	7.1
150	GR 21					224
	top	10 YR 4/3 brown	25-42-33	34	4.	
	bottom	10 YR 4/3 brown	36-32-32	142	₫.	
151	GR 22					193
	top	10 YR 4/3 brown	56-23-21	53	7.	
	bottom	10 YR 4/2 dark grayish brown	6-43-51	18	89.	
152	GR 23	10 YR 5/3 brown	81-7-12	79	m,	103

Station	Sample Number	Color	Sand-Silt- Clay	% CaCO <sub>3</sub>	%Corg	Depth corr. m.
153	GR 24					77
	top	10 YR 4/3 brown				
	bottom	10 YR 4/2 dark gray brown	23-31-46	27	8.	
154	GR 25	10 YR 4/3 brown	1-47-52	.7	1.1	84
156	GR 26	10 YR 4/2 dark gray brown	1-44-55	7	o,	84
158	14 W/U	10 YR 4/2 dark gray brown	52-22-26	58	0.	75
162	GR 27	10 YR 5/3 brown	35-3-62	85	m,	112
163	GR 28					85
	top	10 YR 4/4 dark yellow brown				
	bottom	10 YR 4.3 brown	75-11-14	77	<i>-</i> ².	
164	GB 29	10 YR h/h dark yellowish brown	91-4-5	92	o.	©
165	GR 30	10 YR 4/2 dark gray brown	42-23-35	39	æ	79
166	GR 31	10 YR 4/2 dark gray brown	77-10-13	85	ci	77.77
168	GR 32	10 YR 3/2 very dark gray brown	4-53-43	5	1.1	28
169	GR 33	10 YR 3/2 very dark gray brown	10-60-30	10	ω.	22
170	GR 34	10 YR 3/3 dark brown	75-15-6	CZ	7.	11
172	GR 35	10 YR 3/3 dark brown	88-9-3	CV.	0.	10
173	U/W 44	10 YR 4/2 dark gray brown	92-5-2	CV.	0.	6

Depth corr. m.	19	28	84	62	72	92	106		186			160
%Corg	7.	1.2	9.	φ.	٦.	ĸ,	0	:		e.	7.	.3
% CaCO <sub>3</sub>	5	σ.	52	15	72	81	9	3	-	777	30	ô.
Sand-Silt- Clay	16-52-32	8-62-30	60-20-20	4-27-69	87-5-8	83-8-9	5-19-106			76-11-13	57-18-25	72-14-14
Color	10 YR 4/2 dark gray brown	10 YR 3/2 very dark gray brown	10 YR 4/2 dark gray brown	10 YR 4/2 dark gray brown	10 YR 4/3 brown	10 YR 4/3 brown	10 VR 14/3	brown 10 YR 4/4 dark yellow brown		10 YR 4/3 brown	10 YR 3/2 very dark gray brown	10 YR 6/3 pale brown
Sample	U/W 45	0/w 46	14 W/U	U/W 48	64 W/n	OR 36	GR 37	bottom	GR 38	top	bottom	он 100
Station Number	174	175	176	177	178	179	180		182			189



	9													
PASE 1	C 990 C 980	, c	0	0	0		c	0		0	0		0	0
4	S S S S S S S S S S S S S S S S S S S	4		1369	0994		3339	1345		3353	C#E#		3359	1328
	S A S E		13	13	13		13	13		13	13		13	13
	CORE LENGTH DREDGE 9R OR SAMPLE 0	E 0 00	0000	0000	0000		0000	0000		0000	0000		0000	0000
	CORE LENGTH SEND	, i		122.	1195.		37.	176.		62.	1189.		68.	160.
	a		IBNS	4284	4619.	SNOIL	4619.	4792.	SNOIL	4792.	4618.	SNOL	4618.	2200
	CBRE		LANINA ANINA	1000	0005	LAMINA	2000	+000	LAMINA	+000	2000	LAMINA	9000	9000
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	× 2		DRBTR	9	•	DRBTR	3	3	DROTE	3	9	DRBTR	<b>3</b>	<b>0</b>
	CORE DE CORE DE ENGTE	Not took	NUMERBUS HYDROTROILITE LAMINATIONS	7 33,11	7 40.31	ROUS HY	7 40.3	7 23.3	ROUS HY	7 23,31	7 49.41	ROUS HY	7 49.4°	7 11.51
EVAL		w 2	NUM	7	u)	N C M	w Z _	. Z	NOM	w	Z .	NON	Z -	7
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STATION DATA RETRIEVAL	DATE	, c	**COMMENTS**	75 210	75 21	*	75 211	N	÷	a	a	•	75 216	ñ
SO	0		*CBMP	96	15	**COMMENT	92	15	**CBMMENTS	90	15	**COMMENTS	90	13
	SAMPLE	36.02	0000	0000	0000		0000			0000			0000	0000
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	0	. m	•		-								-	
: :	SAMPLE DE DATE	E CAUTSE		4.7	4.7		47	4.7		4.7	+7		4.7	1,1
	9	2		œ Z Y	Q Z		œ Z Y	œ V Y		œ V	A V		2 Y	a Z Y

Page 1 of 2

Ship KNeRR. Cruise 47 Leg E Sto. 1 Core No. 1 Pc.
Total Length 1155 cm. Lat. 33° 50.6'N Long.52° 33.1'W Depth 4289 cerr. n.
Core condition Excellent Date Described 3.4 deil 16 by H. Farner
Physiographic location CREST PLATENLE - BEAMILDA RISE

Detailed Description Lithologic 9

CALC OOZE
10 YR 6/3 pale brown
essentially no mottling
soft, slightly silty lutite, few forams
5 0-5

Phistocene

CALC CLAY GRADES TO CALC GOZE

VAY \$5/3 brown; grades very gently to 5/2 grayish brown (\$\pi\$ 700 cm) which pales to 6/2 light brownish gray (\$\pi\$ 1060 cm) 5-1155

1001

1

700

very small, dark brown mottles are scattered fairly sparsely through the top 80 cm and very rarely through the trop 80 cm and very rarely through the state of an interest slightly bigger, dark brown mottles are scattered to the end of the core fairly siles, slightly siley lutite with only occasional formans; below 700 cm the lutite becomes somewhat framer laminations are found below 600 cm, such as; firmer laminations are found below 600 cm, such as; 606, 530, 732, 758, 789, 822, 866, 895, 910, 933, and 970 cm. These are commonly a bit pale and sometimes are followed by somewhat darker layers such as 867-887 cm, 910-915 cm, 934-944, cm and 970-976 cm occasional isolated, compact, yellowish brown lumps appear 125-260 cm, some with black, lithified nuclei, while occasional black fragments appear without the

yellowish crust
VOTE: The initial shipboard description points out
that numerous hydrotroillite layers were present
between 100-315 cm immediately after splitting

end of core

0

200

d

F002

0

1 00

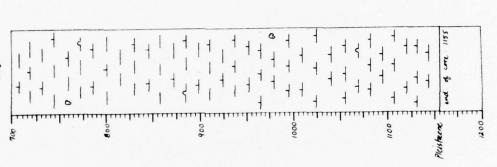
VISUAL CORE DESCRIPTION

Page 2 of 2

Core No / PC \_ Leg \_\_ Sta. \_ Ship KNORR Cruise 42

Lithologic

Detailed Description



SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

## VISUAL CORE DESCRIPTION

Page 1 of

Total Length 142 cm Lot 33° 50 L'N Long 57° 331' W Depth 1284 werm Debut

Physiographic location PLATERU ON BERMUDA RISE AREA OF LAMINATED SEDIMENTS Lithologic

Detailed Description

60

CH

1155

Total Core Length \_

Station No. \_\_\_\_

1 PC

Core No.

KNR

Ship:

Expedition 47

Leg No.

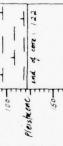
ESTIMATED ABUNDANCES (%)

Inorganic Material Silt & Sand

CALC COZE 10 YE 5/3 brown, grades to 6/3 pale brown below 65 cm a few, small, grayish-brown mottles appear clustered at the following depths: 20,49,72-82,113 somewhat firm, slightly silty lutite, forams are scattered throughout 119 cm - 3 mm bed of 10 YR 3/3 dark brown, slightly silty luties; 120 cm - bottom 2 cm have a more crumbly texture than above sediment (slightly calc clay)









Ofhers

Discoasters

sfissofonnsN

Forams

Clay Volcanic

satiloaz

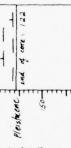
Micronodules Detrital

SEDIMENT

TYPE

LEVEL

pteropods





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28

EF tr tr

38

t L

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84

calc clay calc clay

09

calc coze

87





tr 1

tr

86

tr

slightly calcastic clay

black frag.

360

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85

98 98

\*

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calc clay

clay

099

calc clay

094





tr

16

t

calc clay

760

cale clay cale clay

stiff lam.

highly

calc ooze calc ooze

1060 1154

096

tr







Page / of 2

700

VISUAL CORE DESCRIPTION

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 2 of 2

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

SEDIMENT   Part   Fore Length   1119   Cm															
SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   SEDIMENT   STATEMENT	Leg	No.				Tota	100	e Le	ngth .		1178		E		
STIMENT   P   STIMENT   P						EST	IMATE		UNDANC		(i)				
SEDIMENT   SEDIMENT			Ino	Silt	& San	erial			Cal	geen	S	ateri	Sili	ceon	5
calc clay         5         tr         42         tr         3         tr           calc clay         2         85         tr         tr         1         tr           slightly         5         88         tr         tr         1         tr           calc clay         6         89         5         tr         tr         tr           calc clay         6         89         tr         6         1         tr           calc clay         6         89         tr         6         1         tr           calc clay         4         89         tr         6         1         tr           calc clay         4         89         tr         6         1         tr           calc clay         4         89         tr         6         1         tr           calc clay         4         89         tr         6         1         tr           calc clay         4         89         tr         6         1         tr           calc clay         4         85         tr         3         5         tr           calc clay         4         1 <td< th=""><th>LEVEL</th><th>SEDIMENT</th><th>[.4,.400</th><th>Micronodules</th><th>2931109Z</th><th>AOICGUIC</th><th>Clay</th><th>Rorams</th><th>sfissofonns/</th><th>pteropods</th><th>Discoasters</th><th>Others</th><th>2mo16i0</th><th>sime forbs A</th><th>sabuods</th></td<>	LEVEL	SEDIMENT	[.4,.400	Micronodules	2931109Z	AOICGUIC	Clay	Rorams	sfissofonns/	pteropods	Discoasters	Others	2mo16i0	sime forbs A	sabuods
calc clay         5         88         tr         tr         1         tr           calc clay         5         88         tr         tr         1         tr           calc clay         5         tr         3         tr         tr         tr           calc clay         6         89         tr         4         1         tr           calc clay         6         89         tr         4         1         tr           calc clay         6         89         tr         4         1         tr           calc clay         6         89         tr         3         5         tr           calc clay         4         89         tr         4         1         tr           calc clay         4         89         tr         3         5         tr           silic clay         4         89         tr         4         7         7           pyrite         100         tr         7         7         7         7           calc clay         4         1         4         7         7         7           calc clay         4         4         7 <td>-</td> <td>calc ooze</td> <td></td> <td>ä</td> <td></td> <td></td> <td>51</td> <td>2</td> <td>4.2</td> <td>t</td> <td></td> <td>m</td> <td>1</td> <td></td> <td></td>	-	calc ooze		ä			51	2	4.2	t		m	1		
calc clay         5         88         tr         tr         1         tr         calc clay         4         4         3         5         tr         tr         tr         tr         tr         tr         tr         tr         tr         tr         tr	09	cale clay	2				85	tt	∞		7	-	4	T.	
slightly         5         92         IT         3         IT         IT           calc clay         6         89         5         IT	153	calc clay	5				88	ij	נ			-	ä		
calc clay         6         89         5         tr         tr         tr           calc clay         8         85         tr         6         1         tr           calc clay         6         89         tr         1         tr           calc clay         4         89         tr         2         tr           calc         silic clay         4         85         tr         3         3         5           silic clay         5         tr         76         tr         8         4         7           pyrite         100         7         1         1         1         1         7           calc         calc         100         7         1         1         1         7         8         1           calc         clay         3         4         7         7         7         7           calc         calc         100         7         1         1         1         4         8         1           calc         calc         10         1         1         1         4         8         1	250	slightly calc clay	5				92	1	е.			1	=		1
calc clay         8         tr         6         1         tr           calc clay         4         89         tr         1         tr           calc clay         4         89         tr         5         2         tr           calc.         silic clay         4         85         tr         3         5         tr           calc.         silic clay         5         tr         76         tr         8         4         7           pyrite         100         71         tr         12         5         8         tr           calc.         calc.         21         71         tr         12         5         8         tr          calc.         calc.         21         7         4         8         1         4         8         1	350	calc clay	9				68		2			1	ä		
calc clay         6         89         fr         4         1         fr           calc clay         4         89         fr         5         fr         f	450	cale clay	00				85	Ħ	9			-	H		
calc clay         4         89         tr         5         2         tr           unfoss. clay         100*         tr          calc         calc         calc         tr         tr         tr         tr          calc         calc         tr         tr         tr         tr          calc         tr         tr         tr          tr         tr          tr         tr         tr          tr          tr          tr          tr          tr          tr          tr          tr          tr          tr          tr         tr          tr	550	calc clay	9				89	Ħ	4			-	Ħ	I	- 1
unfoss. clay         4         85         tr         3         5           silic clay         5         tr         3         4         7           silic clay         5         tr         76         tr         8         4         7           pyrite         100	929	calc clay	7				89	Ħ	5			2	7		2
Silic clay	751	unfoss. clay					100*		tr			Ħ	Ħ		
calc-silic clay     5     tr     76     tr     8     4     7       pyrite     100     4     71     tr     12     5     8     tr       calc-silic clay     3     79     4     4     8     1	848		4				85	1	m			6	2		- 5
pyrite         100           calc-silic clay         4         71         tr 12         5         8         tr           calic clay         3         79         4         4         8         1	950		5			tr	76	tr	00			7	7		
calc-silic clay     4     71     tr     12     5     8     tr       calc-silic clay     3     79     4     4     8     1	+196	pyrite	100												
calc-silic clay 3 79 4 4 8 1	1050	calc- silic clay	7				71	1	12			5	00	1	2
	1178	calc- silic clay	3				79		4			4	80	-	

Page 2 of 2	2 Core No. 2 PC	scription	
701 VISUAL CORE DESCRIPTION	Cruise 47 Leg 1 Sta.	Detailed Description	
VISUAL CO	Ship KHORR Cr	Lithologic Log	Rishere mad of one 1179

Page 1 of 1

Ship KNORR Cruise 47 Leg 1 Sta 2 Core No 2 PG.
Total Length 37 cm. Lat 33° 40.8 'N Long 57.° 40.3 'N Depth 4613 casa.m.
Core condition ExecuteNT Date Described 37 April 36 y T FARMER Physiographic location Bernman Rise , AREA of ACAUSTIC LAMINATIONS

Detailed Description So med of con 37 Lithologic

CALC OOZE

10 YR 6/3 pale brown
10 YR 6/3 pale brown
11 YR 6/3 pale brown
12 YR 6/3 pale brown
13 pale brown
14 pale brown
15 cm of this unit
16 ss slick, slightly silty luttie; some forams are present
16 of core 0-30
CALC OOZE
10 YR 5/3
homogeneous, except for thin, dark grayish brown mottling
from 19-21 cm
slick lutite; a few forams are scattered throughout

> 75-, ,,,

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

37 Total Core Length Core No. 2 PG Station No. 2 KNORR 47 Expedition Leg No. \_ Ship:

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	Sn	Spondes	ţ	5													
	ceo	RadiolbeA															
اع	Sili	2mo 16 i U	Ħ	7	1												
ater		279410	-	1													
Shor	Sno	Discoasters															
ioger	cane	Pteropods															
80	Cal	2 [ i 220 Tonn 6 M	65	50													
		Forams	-	ä													
		Clay	33	64													
erial	P	Volcanic shands															
Mat	& San	zej t [oe5															
gani	ilt	Mi cronodul es	Ħ	1													
Ino		Detrital grains	1	Ħ													
		<b>=</b>	9	9	1					T							T
		SEDIMEN TYPE	calc ooz	calc ooz	-												
		LEVEL	-	36													
		Inorganic Material Biogenous Material Silt & Sand Calcareous	SEDIMENT  STITE ALTER  STITE ALTER  STITE ALTER  STITE ALTER  STITE ALTER  STITE ALTER  STITE ALTER  STITE  STITE  STITE  STITE  STITE  STITE  STORM  MARTETIAL  STORM  STAND  STORM  MARTETIAL  STORM  STAND  STORM  MARTETIAL  STORM  S	SEDIMENT TYPE TYPE TYPE TYPE TYPE TYPE TYPE TYP	SEDIMENT  TYPE  TY	SEDIMENT  TYPE  TYPE  Calc ooze  TT TT TT TT TT TT TT TT TT TT TT TT TT	SEDIMENT  SEDIMENT  SEDIMENT  SIT & Sand  Calcarous Reterial  Silt & Sand  Calcarous Reterial  Silt & Sand  Calcarous Reterial  Silt & Sand  Calcarous Reterial  Silt & Sand  Calcarous Reterial  Silt & Sand  Calcarous Reterial  Solution Calcarous Re	SEDIMENT  TYPE  Calc coze  tr tr tr  tr  type  Calc coze  tr  tr  tr  tr  tr  tr  tr  tr  tr  t	SEDIMENT  Calc coze  TTPE  TTP	SEDIMENT  TYPE  Silt & Sand  Calc Ooze  Tr Tr Detrital  Silt & Sand  Calc Ooze  Tr Tr Detrital  Silt & Sand  Calc Ooze  Tr Tr Detrital  Silt & Sand  Caregus  Silt & Sand  Caregus  Silt & Sand  Caregus  Silt & Sand  Caregus  Silt & Sand  Caregus  Silt & Sand  Caregus  Tr Tr Detrital  Silt & Sand  Caregus  Silt & Sand  Caregus  Tr Tr Tr Detrital  Silt & Sand  Caregus  Silt & Sand  Silt & Sand  Caregus  Silt & Sand  Silt	SEDIMENT  Calc coze  TTYPE  Calc coze  TTYPE  Calc coze  TTYPE  TTYPE  Calc coze  TTYPE  TTYP	SEDIMENT  TYPE  Silt & Sand  Calconous Atterial  Silt & Sand  Calconous Atterial  Silt & Sand  Calconous Atterial  Micronodules  Calconous Atterial  Micronodules  Calconous Atterial  Calconous Atterial  Calconous Atterial  Silte Sand  Calconous Atterial  Calconous A	SEDIMENT  Type  Silte Sand  Silt & Sand  Sil	SEDIMENT  TYPE  SILE SEDIMENT  SILE SEDIMENT  SILE SAND  SILE SAND  SILE SAND  SILE SAND  Calcons  Calcons  Tree Tree Tree Tree Tree Tree Tree Tre	SEDIMENT  TYPE  Silt & Sand  Calconous Acterial  Silt & Sand  Calconous Acterial  Micronodules  Calconous Acterial  Try fr fr Detrital  Soldenous Acterial  Calconous	SEDIMENT  The Solution of the control of the contro	SEDIMENT  The Solution of the Color of the C

Page 1 of 2

197 Leg I Sta. 4 Core No 49-PC.

Lat. 33-54.8 / V Long 57-233 WDepth 4792 care. M.

Date Described 4 Jour 16 by H. Ferner 4-PC Physiographic location Bernuda Rixe Core condition EXCELLENT Cruise Total Length 776 Ship KNORR Lithologic

10 YR 5/3 brown no mottling relatively unconsolidated, slightly silty lutite, relatively unconsolidated, silty lutite, forams are common CALC OOZE 10 YR 6/4 light yellowish brown Detailed Description forams are common S, but distorted no mottling CALC OOZE 0-3 Action of the tenth of the tent 00/

very Sharp, slightly distorted SLIGHTLY CALC CLAY 3

TWOSSILIFEROUS CLAY

5 Y 6/2 and 6/3 light olive gray and olive gray
numerous compacted, clongate mottles (and possibly
disturbed laminations?) of 50Y 5/1 and 4/1 greenish gray and dark greenish gray; also, a fee small
zones of yellow are scattered about (10-11 cm,
13 cm); and a few very small, black mottles (Mn rich)
are present in this zone
generally a very slick lutite except the yellowish
zones which are semi-lithified, lumpy, and not so 10 YR 5/4 yellowish brown no mottling slick lutite, very few forams very Sharp, but disturbed

NOTE: The above 14 cm appear to be a compressed representation of as much as the top 2 meters of sediment. This most probably is a result of poor coordination of the piston such that the corer may have penetrated up to 2 meters before the piston moved and normal sampling began. However, the core cutter ( $\approx 16$  cm) seems to have sampled a portion(?) of virtually all the lithologies within that interval. slick

UNFOSSILIFEROUS CLAY 14-348

400

10 YR 6/2 light olive gray several large, irregularly shaped mottles of 5 GY 4/1 dark greenish gray are present to 50 cm; these generally show both sharp and smeared out gradational contacts with the primary color; below this large

VISUAL CORE DESCRIPTION

Page 2 of 2

Core No 4-PC 7 Leg I Sta. 47 Ship KNORR Cruise

Detailed Description Lithologic

348-504 0 71111 NO NANNOS 200

14-348 (cont.)

burrows of 5 GY 5/1 greenish gray in assorted shapes are scattered throughout; in addition, numerous, thin laminations, lenses and very small fleeks of pale yellow (7 oxide) are scattered throughout - for example, 51 cm, 54, 57, 58, 59, 150, 230, 233-235 cm and many more quite firm and compact, slick and generally smooth luttle

UNFOSSILIFEROUS CLAY

5 Y 5/1 gray
large burrows of 5 GY 5/1 greenish gray are still
present, but somewhat fewer in number; pale yellow
laminations are now absent
anice smooth lutite

slightly more compact, slick, quite smooth lutite 461 cm - incomplete bed (broken pavement?) of small lithified fragments or nodules (pyrite) 504-770

Z

5 Y 5/l gray flow in of above unit UNFOSSILIFEROUS CLAY

**8** J....

end of core

TTU: and of cone

Page 1 of 1

Total Length 62 cm. Lat. 33°54.8°N Long 52°3.3°W Depth 4792 case A. Core condition Excellent
Physiographic location Remaids Rise Date Described 4 Line 16 by H. Farmer
Lithologic

607

4 PC

KNR

Ship:

Expedition 47

Leg No.

Detailed Description

CALC OOZE

10 YR 8/3 brown
40-50 cm is slightly darker brown with faint mottles of brown
slightly slity to slity lutite; forams are generally common, except abundant in numerous pockets and lenses from 33-53 cm
remarkably well-formed Mn nodule (2 x 2 cm) at 27 cm end of core

1<sub>1</sub>1 1<sub>1</sub>1 1<sub>1</sub>1 + 1 + 25 0

Biogenous Material
Calcareous

Inorganic Material Silt & Sand

ESTIMATED ABUNDANCES (%)

Total Core Length

Station No. \_ Core No.

E

and of con

HHHH

Radiolaria

Spondes

Diatoms

SUPULO Discossters

Pteropods

sitzzotonneN

Forams

Clay

Volcanic

Micronodules Detrital grains

SEDIMENT

TYPE

LEVEL

Sectioes

3 ij -

35

55 3 96 89

T 1 t 30

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calc ooze calc ooze

H

55 tr

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75.

T.

68 96 #86

6 calc clay
black unfossiliferous
limottle clay/Mn
dark unfossiliferous
18 mottle clay
unfossiliferous

80 clay
yellow unfossiliferous
43 oxide clay
unfossiliferous

43 oxide

189 285 385

clay unfossiliferous clay unfossiliferous

<del>ատրողակարարակարարակարարակար</del>

001

t

16 86 tr

86

tr

92 92

tt

\*\*

clay unfossiliferous

495 170

461 nodule pyrite unfossilife ous

clay

unidentifiable authigento formation (1), light reddish brown clusters of grystal-like needles or dark brown, ragged fragments with crystal, growing on edges everything has a tain coating of reliquish stain \*mostly fine silt

707

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

47 KNR

Expedition Leg No.

Ship:

SEDIMENT

TYPE

LEVEL

calc ooze calc ooze

19

## VISUAL CORE DESCRIPTION

Page 1 of

Total Length 1173 cm. Lat 33° 30 L'N Long 57° 494' w Depth 44/8 cerr. M. Core condition EXCELLENT Date Described 30 April 16 by H. Farmer Physiographic location BERMUDA RISE

Detailed Description

0-3 1 1 1 1 + + 1 1 Pleistrene Log + + 760-100+ 300 100 sabuods ij Biogenous Material Siliceous strafolbas E tr Diatoms Others 7 Discoasters 62 ESTIMATED ABUNDANCES (%) Pteropods 9a 7 Total Core Length 20 38 s[issofonnsN Station No. \_ 57 1 Forams 5 Core No. Clay 75 Inorganic Material Silt & Sand Spreds Zeolites tr tr Micronodules grains Detrital

10 WR 5/3 brown turns very gradually to 5/2 grayish brown (\$\pi\$1000 m) amall, very dark grayish brown notifies are clustered in small areas such as 13-25, 31-39, 59-64, 84-93, etc. dam the core: Mottle-free areas are 200-610 and 650-780; a faint, reddish hue denotes subtle comes, such as: 19-26, 114-130, 170-185, 281-297, 318-327, 335-345, 393-404, 454-462, 483-496, 875-892, and 897-899 on very slightly siley, slick lutite; generally the sediment below 200 cm appears more uniform and becomes somewhat firmer towards the bottom of the core from 200-700 cm a number of isolated, rusty-colored, compacted lutite lumps are present: sometimes these also appear as incomplete bedding teatures that extend horizontally across part of the core; two black, horizontal, tube-like objects were observed at 859 cm and 1004 cm (pyritized worm burrows) NOTE: Initial slipboard descriptions indicate that numerous black, often semi-lithified, hydrotroilite laminations were present from 200-810 cm. Many of these correspond to the compact, rusty-colored lenses and laminations noted above 10 YR 6/3 pale brown no mottling, but some color variations appear as disturbed laminations slick, smooth, slightly slity lutite 5. mildly disturbed 3-1173 CALC CLAY CALC OOZE

end of core

+

Page 2 of 2

Core No. 5 Pc. \_ Leg / Sta. 5

Ship KNORA Cruise 47

Detailed Description

Lithologic Log

1 | 1

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 5 PC. Station No. KK 47 Expedition Ship:

1173 Total Core Length \_\_\_

E

Leg No.

		Silice	Radiolaria				
-	[e]	511	Diatoms		נ	-	
	ater		219410	-	3	3	
96	Biogenous Material	Sno	Discoasters				
CES (	ioger	Calcareous	Pteropods	2			
ESTIMATED ABUNDANCES (%)	8	Cal	2 f i 220 i onn 5 M	07	00	20	
D ABI			2m6Y07	6	t	-1	
IMATE			CJay	99	82	71	
EST	erial	P	Volcanic shards				
	c Mat	Silt & Sand	Zeolites				
	rgani	Silt	Ri cronodul es				
	Ino		Setritad Refirited	Ħ	7	7	
			SEDIMENT	calc ooze	calc clay	highly calc clay	
			LEVEL	1	22.	37	

Sponges

sno

56	82	11	89	81	95	
b	7	4	3	7 2*	5	
calc ooze	calc clay	highly calc clay	cale clay	calc clay	227 unfoss. lutite lump clay	
1	22.	37	125.	154 mottle	227 Lutite L	

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tr 5 tr 4

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4

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7 ä ä

tr 5

85 tr 4

tr 3

92 88

86 Lr 3

90 tr 5

91 :1 2

4 unfoss. calc clay calc clay

> 250 350

{

4000

calc clay

calc clay slightly calc clay cale clay

458 450

550 650

H

Athis material is primarily fine silt size

(cont.)

\*rusty (Mar) coating on variety of objects
\*\*thin Mar(?) coating clay

· reddish sones

Pleishune mad of core 1173

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 2 of 2

_	
717	DESCRIPTION
	CORE
	VISUAL

Page 1 of

Total Length 68 cm. Lat 33° 30 6' N Long 57° 49.4 W Depth 4618 are m. Core condition Exercised 20 461 136 by H. FARMER Physiographic location BERMEDA Rise Date Described 30 461 16 by H. FARMER Lithological

Detailed Description

1173

Total Core Length

Station No. Core No.

Expedition 47

Leg No.

KNR

Ship:

5 PC

ESTIMATED ABUNDANCES (#)

Inorganic Material Silt & Sand

SEDIMENT

TYPE

LEVEL

O-86
CALC OOZE
CAR 5/3 brown
very fine, dark grayish-brown mottles and laminations
appear at 22-24 and 46-55 and
fairly smooth, slick, slightly slity lutite, becomes more
compact and drier towards the bottom
1 cm lamination of very smooth, slick lutite (10 YR 4/3)
at 25 cm - highly calc clay

Response to the total of the to Pleistocenc - and of core 1111 50 1 00/ BHAO Spondes Biogenous Material
Calcareous

tr tr

tr

Ħ t

91 85 96 89

Rediolaria

Discoasters

Clay Volcanic

Sections Micronodules Detrital grains

preropods

Smotsfü suauto tr

4

tr 4

t H

tr H

calc clay

calc clay

1172 1050

calc clay slightly calc clay

> 850 950

750

silic clay

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

5 PG

KNK 47

Ship:

Expedition Leg No.

Total Core Length

Inorganic Material Silt & Sand

Station No. 5 Core No.

VISUAL CORE DESCRIPTION

Ship KNORR Cruise 47 Leg / Sta 33 Core No. 66C.
Total Length 60 cm. Lat. 34° 1828 1 Long. 51° 11.51 W. Depth 6500 m Lavr.
Core condition Excellent Date Described 23 mult. by 4.81 mel.
Physiographic location BERNIUD 415E.

Lithologic

Detailed Description

O-160
CALC OOZE CRADES TO UNPOSSILIFEROUS CLAY WITH Mn
HICRONODULES
7.5 WR 5/4 brown grades to 10 YR 6/4 light yellowish brown
common pale brown mottling, burrowing and marbling
slightly slity lutte with extensive presence of small,
lithified lumps and flecks 0-60 cm, then a few scatcered forams from there to base of core

end of core

antof core: 160m ռարարարարարարարարարարար No Manues 200 Spondes tr 1 = Biggenous Material
Calcareous Siliceous Radiolaria E3 | Diatoms tr 1 ţ 0111615 Discoasters 89 ESTIMATED ABUNDANCES (%) Pteropods

sf12201onnsN

Forams

CISA

Volcanic Shards

Micronodules

Detrital

SEDIMENT

TYPE

LEVEL

Zeolites

15 65

= t

> 7 ä

> > t

calc ooze

33 82 25

5

calc ooze highly calc clay

25 99

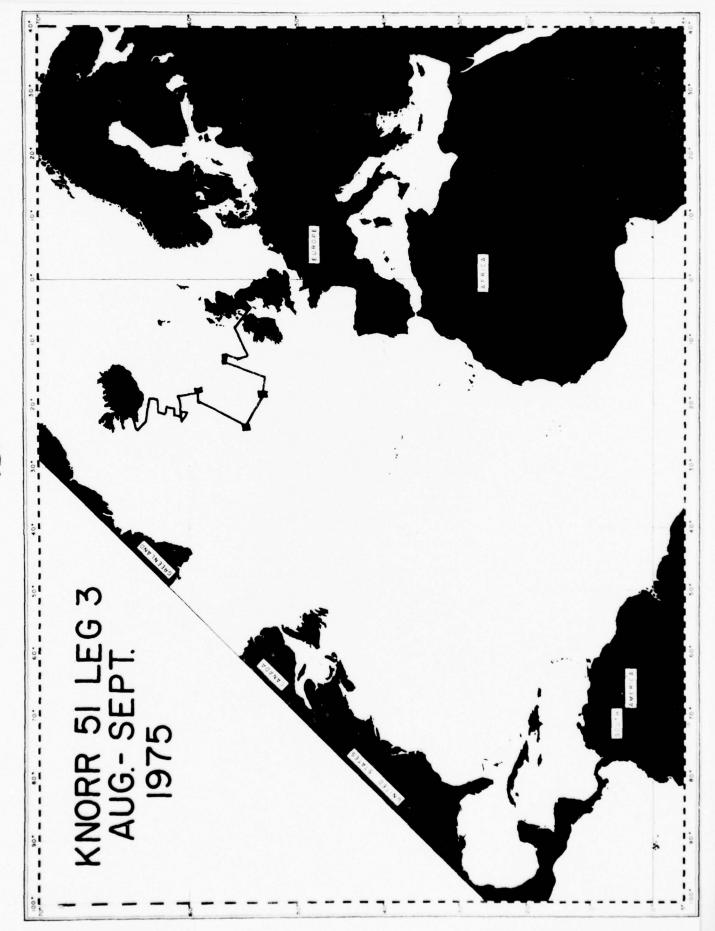
75

\*from slick lamination

Page 1 of 1

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Station No. Total Core Length	ESTIMATED ABUNDANCES (%)	Inorganic Material	Silt & Sand Calcareous	Micronodules Zeolites Volcanic Shards Clay Forams Nannofossils	2 34 8 45	45, 45,	3 91	20 68							
Expedition 47		Ino		SEDIMENT TYPE TYPE Octrited grains	calc ooze 3	unfoss. clay/	100 unfoss. clay 6	unfoss. clay 159 with Mn micro- 12	nodules						



DATE: 17:20 JUN 03, 17
1,4.04 19
61
61 38.61
*
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90
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99
36 1
99
99
26
26
99
26
90

Page / of /

Ship KNR. Cruise 5/ Leg III. Sta. 21 Core No. 1FF.

Total Length 52 cm. Lat. 44 474 Long. 20 514 No. Depth. 2062.8-47.

Core condition EXCELLENT Date Described JEROOP by 47ME76.

Physiographic location NANRY CHRANEL MEMORE.

Lithologic

Detailed Description

4141

Personal Long

CALC SILIC OOZE
2.5 Y 4/2 dark grayish brown
a few, faint, grayish brown mottles and burrows
throughout
moist, very silty lutite with a few scattered forams
and white calc fragments
5, irregular

1104

4

SILIC CLAY/ASH virtually homogeneous except for inclusion (see below) smoother, moist lutite (somewhat spongy) black ash inclusion, irregularly shaped, found at 50-51.5 cm CALC SILIC OOZE WITH ASH AND A 20NE OF HIGHLY CALC

end of core

11911

1 10 10

5

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بار تار

Residence Bodd cont. 92 con.

11

721

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

ES Total Core Length 52 1 FF 21 Station No. \_ Core No. KNR Expedition Leg No. Ship:

OCHLHO

		-		7.5		- 1		
1		iceo	sinslotbeA					
	رم م	Siliceou	2mot610	4	4	5		
-	ateri		Отрыс	9	2	3	8	
(2	Biogenous Material	Sn	Discoasters					
CES	iogen	Calcareous	pteropods					
MON	8	Sal	2 f t 2 2 0 7 0 n n 5 M	42	30	35	16	
ESTIMATED ABUNDANCES (%)			Forams	2	00	5	4	
IMAT			Clay	28	30	23	30	
EST	erial	P	Volcanic shards	6	14	22	42	
	Inorganic Material	Silt & Sand	Zeolites					
1	rgani	Silt	Micronodules	ij				
	Ino		Detrital animp	2	4	2	3	
			SEDIMENT TYPE	calc silic ooze	calc silic ooze	calc silic ooze with ash	highly calc silic clay/ash	
			LEVEL	2	34	84	52	
_	-	-					-	-

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tr.

W C > L E Sebuods

/ to / ago

Ship HNRR. Cruise 51 Leg III. Sta. 22 Core No. 2FF.

Total Length 9k cm. Lat 61-38-474 Long 20-32-814 Depth 2079 Mem

Core condition Excellent Date Described 477MELS by 1 Broke.

Physiographic location MANNY CHANNEL MENAPER.

Lithologic

Detailed Description

2.5 Y 4/2 dark grayish brown a few darker burrows and mottles found at unit basal CALC SILIC OOZE

0-25

very moist, watery, silty lutite with very few forams slightly disturbed and washed 0-13 cm 5, irregular

3

HIGHLY CALC SILIC CLAY/ASH 2.5 Y NZ.5/ black homogeneous throughout moist bed of nearly pure ash very S, slightly disturbed 29-70

بأيا

CALC SILIC 002E GRADES TO CALC SILIC 002E/ASH 2.5 Y 4/2 dark grayish brown a few, yellowish, siliceous laminations found at 32 cm, 55 cm (faint), 60 cm moist, sility, slightly mulchy lutite color grades to 2.5 Y 3/2 very dark grayish brown 67-70 cm 5, horizontal

100 - ONLY LAL 96100 11111

Resymble

CALC SILIC OOZE

 $2.5~\mathrm{Y}~4/2$  dark grayish brown several lighter brownish-gray laminations and zones  $82.90~\mathrm{cm}$ moist, silty, slightly mulchy lutite

end of core

723

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

2 FF Station No. Core No. KNR Expedition Ship:

Leg No.

EJ

96 Total Core Length \_\_

					ESI	LIMAT	ED AB	ESTIMATED ABUNDANCES (%)	CES (	96		1	1		SH
		2	Inorganic		Material			9	oden	Sno	Biogenous Material	9	1		-
			Silt	& Sand	D			2	Calcareous	ns		Sıl	Siliceous	n.s	HO
	SEDIMENT TYPE	SetritaD Reference	Ni cronodul es	səj i loəZ	Volcanic shards	Clay	2m6107	2 fizzołonnsM	Pteropods	Discoasters	shers	2mot6 iQ	Radiolaria	sabuods	SGALTO
-	calc silic ooze	3	6		12	21	9	45			2	3		2	
1	calc silic ooze	3	2		10	27	8	35			2	10	ä	9	, -
1	highly calc silic clay/ash	5	Ħ		07	31	m	18			-	1		2	, ,
	calc silic ooze		5		∞	37	2	07	נ		4	2	ţ	4	-
	calc silic ooze	ţ			8	25	2	32	Ħ		2	25	5	5	
	calc silic ooze/ash	8			25	17	7	30			2	4	ţ	9	
	calc silic ooze	3			œ	24	5	45			4	9	ij	2	
															-
1															-
1															
1															1
1															,
-															

Page / of /

Ship Killing Cruise 5/ Leg III Sto. 23 Core No. 3FF

Total Length 72 cm. Lat 6/36.47 Long 20.34.87 Depth 2134.4.1.

Core condition Excercent Date Described 4/INE 8 by 41.44

Physiographic location NIVEY CHANNEL MEMORE.

Lithologic

Detailed Description

CALC SILIC OOZE 0-17

2.5 Y 4/2 dark grayish brown and 5/2 grayish brown varying hues of the colors above found throughout gradational zones 10-15 cm, 35-42 cm moist, silty, slightly mulchy lutite throughout misting are one of liner, filled with foam - no sediment missing

end of core

1

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

CH Total Core Length \_\_ 23 Core No. 3 FF Station No. 3 KNR Expedition Ship: Leg No.

S	н.	110	00 71400	7	1	ij	Ħ	#	
		S	Sepuods	2	9	7	80	9	
	1	Siliceous	Radiolaria	ŗ	_	ţ	ţ	Ħ	
-	رو	Sil	2mots iQ	3	6	4	3	2	
	Material		others	4	Ħ	3	ij	2	
(*	S		Discoasters						
SES (	Biggenous	Calcareous	Pteropods	tr	Ţ				
ESTIMATED ABUNDANCES (%)	89	Cal	sfissofonnsN	32	35	30	42	07	
D AB			2m6Y07	3	9	2	7	4	
IMAT			Clay	47	42	04	32	39	
EST	Material	P	Volcanic sbrands	9	5	6	5	5	
			selffoeZ						
	Inorganic	ijt	Micronodules	tr	tr		tr	ŗ	
	Inor		Setrital Safang	3	2	2	3	2	
			SEDIMENT	calc silic ooze	calc silic ooze	calc silic ooze	calc silic ooze	calc silic ooze	
			LEVEL	1	17	38	70	77	

Ship KNORR Cruise 51 Leg II Sta. 36 Core No. 13-GPC.
Total Length 1440 Cm. Lat 54" 28.5'N Long 15-17.9' W Depth 2665 Core. M.
Pore condition Excellent Date Described June 14 by H. Farmer
Physiographic location Few! Drift — Enstein North Ananto.

homogeneous throughout fairly firm, very silty lutite; forams are common 2.5 Y 6/2 light brownish gray Detailed Description CALC OOZE 7-0 + + + + + 10 1 1 Lithologic

HIGHLY CALC CLAY S, disturbed 

small marbling and mottling of various brownish grays and subtle light and dark laminations appear 2.5 Y 5/2 grayish brown throughout

compact, very silty lutite, forams vary from scattered to quite common but are particularly abundant from 17-18 cm, 24-29 cm, and 75-78 cm; a clast of silt very distorted lamination - appears along edge of core liner from 8-11 cm

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NOTE: Upon inspection of the pilot core, the top 14 cm described above appear to be a compacted and disturbed representation of approximately the basal 30-40 cm of the pilot core. S, mottled from 76-88 cm

+

+

1007

CALC OOZE 40+

1 1 1

+

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1 1 TOT

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300

+

particularly near the grayish brown zones stiff, very silty lutite, with the darker areas being somewhat less firm than the primary sediment; forams 213 cm with the paler colors being much more common mottling and marbling of the above colors are common, grades from 10 YR 7/1 or 7/2 light gray to 2.5 Y 6/2 and 5/2 brownish grays; three cycles of the above sequence appear from 84-104 cm, 104-140 cm and 140are particularly abundant in the light gray zones

but are quite common throughout S, well mottled 100 + + 0

1

18

10 YR 7/1 light gray grades towards 8/1 white (255-CALC DOZE

295 cm) and then darkens to 7/1 again brownish gray mottles from the above unit are scattered into the top 20 cm while intermottling and marbling of the primary colors are common throughout this in-

> 0 1 +

> > 1

1004

181

+ a 10 compact, quite silty lutite except somewhat less silty in the white zone; forams are abundant in nummerous patches throughout the unit small, basaltic pebble at 293 cm very G, mottled from 350-362 cm

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VISUAL CORE DESCRIPTION

Page 2 of 3

Core No 13-4PC Leg III Sto. 36 Ship KNORK Cruise 51

Lithologic

Detailed Description

2.5 Y 5/2 grayish brown pales to 10 YR 7/1 light gray (~~925 cm) subtle mottling is present throughout but particularly apparent as it grades to light gray, light brownish gray lamination at 962 cm silty lutite becomes quite firm and siltier as color small, well rounded pebble at 362 cm; small pumice (?) fragment at 399 cm; void - 452-454 cm S, but very mottled predominant color is somewhat paler than 2.5 % 5/2 grayish brown except transitional zone with upper unit (355-370 cm) 2.5 % 6/2 light brownish gray wide laminations of 2.5 % 5/2 grayish brown appear a 373-386 cm, 420-440 cm, and 692-699 cm; pale band near above irregularities compact, silty luitie; forams increase from common to abundant below 570 cm, very thin bed of coarse sand (detritus/calc ooze) grading up into silty lenses and laminations at 518 cm ish gray ( $\approx 750$  cm) and back to 7/1 ( $\approx 780$  cm) intermottling of above colors is scattered throughout quite firm, compact, very silty lutite with numerous of 6/2 light brownish gray at 586-697 cm; mottling and marbling are present throughout but more common 10 YR 7/1 light gray grades to 2.5 Y 6/2 light brown-2.5 Y 5/2 grayish brown scattered mottles of light gray and a few very small clasts of dark luttle compact, silty lutile with common forams very dark gray-brown lens at 720 cm and a couple mottle-like features at 790 cm and 842 cm (calc pales with depth G and extensively mottled (975-990 cm) CALC CLAY GRADES TO NANNO OOZE very G, well mottled ooze with pyrite) HIGHLY CALC CLAY HIGHLY CALC CLAY Sharp, mottled CALC DOZE 355-700 700-864 986-798 10101 3+++0 + · · · + 14 Ġ OT B 4 + + 1 1 1 1 008 Q + + 111 124, 1 1 1 + 0+ 1 1 1 1 18 40 0 15 + + + + 1 + + + + + + + 1/00/ 1000 200

VISUAL CORE DESCRIPTION

Page 3 of 3

Core No 13-GPC Leg III. Sta. 36 5 Ship KNORR Cruise

Detailed Description Lithologic Log

mottles of grayish brown extend into top some subtle marbling is apparent in remain-S Y S/2 light brownish gray, darkens towards 5/2 with depth.

4

Pleistacno

tro quite abundant in smallish pods 1440 (G)

FLOW IN

2.5 Y 5/2 grayish brown very homogeneous firm, silty lutite with numerous, very small inclusions of semi-lithified lumps of lutite

T T

end of core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

13 GPC Station No. KNR 5.1 Expedition Ship:

Leg No.

Biggenous Material Siliceous Rediolaria 2mots t0 T. 12 Others 54 Discoasters pteropods sfissolonnsN 84 Forams 7 8 77 82 Clay Inorganic Material Silt & Sand Volcanic 200111092 II Micronodules Detrital grains 30 9 calc clay calc ose/
10 silt detritus highly salc clay SEDIMENT calc ooze highly TYPE LEVEL

20 7.1 20 45 82 tr 9 68 1 23 20 tr/tr tr/4 calc clay detritus/ calc clay calc ooze calc ooze highly

tr tr

17

7

35

calc ooze

134

190 280 380 435 517

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/300 €

81 2

tr

n

tr

II tr tr

> 89 calc ooze

30

tr/4 628 calc clay
628 calc clay
dark mottlecalc coze

82 1

69 15

20/1

=

#

=

20/1

19

733 calc coze dark mottlecalc coze 790 w/pyrite

(cont.)

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Page 1 of 2

Core No.

Total Core Length 1440 ESTIMATED ABUNDANCES (%)

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Spondes

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SHEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDINENT CORES

Ship:

Leg No.

LEVEL

## VISUAL CORE DESCRIPTION

Ship KNORR Cruise 51 Leg II. Sta. 36 Core No. 13-PG.
Total Langth 131 cm. Lat 54" 28.5" N. Long 15" 17.1" Depth 2665 cmcs. R.
Core condition Excessor.
Date Described June 16 by H. Fermer
Physiographic location FENI DRIFT - Gestean Nexts Answers

Page 1 of 1

firm, silty lutite with a thin silt lamination (calc ocze/detritus) at base of unit CALC GOZE

ONLY 1/1 Light gray, darkens very smoothly with depth towards 2.5 % 6/2 light brownish gray a few, very subtle mottles appear throughout compact, silty lutite with numerous forams 6, very mottled HIGHLY CALC CLAY
2.5 Y 6/2 light brownish gray grades to 5/2
grayish brown
large mottling with the upper unit appears from
115-135 cm Detailed Description CALC GOZE
10 YR 6/3 pale brown
no mottling
silty lutte
void: 0-2 cm
S, distorted
3-120 end of core 0-3 + + 10 347 - 247 - 148. Botom of and 1 4 4 1. 9 + Lithologic 110 9 1 Moutene 1 125-Z T 100 150 1 Mashene 25 20 OCHLHS N C P F M 5 Spondes Biogeneus Material
Calcareeus Siliceous RinslothsR 5 ion in flow-to Others 15 10 5 1440 Discosters ESTIMATED ABUNDANCES (%) spodouat Core No. 13 CPC Total Core Length nc lus 9 80 H #[feeofonnsM 2 Station No. tr 10 smell, lithified Forams 74 2 16 2 8 70 70 84 Clay Inorganic Material Silt & Sand Volcanic tr 50111007 es [ubonoto !M Detrital grains 1 / 5 tr 30 ã 51 nanno ooze highly SEDIMENT calc clay calc clay TYPE calc clay calc clay detritus Expedition

1360

1025

877 196 566 1425

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Page / of 2

Ship KNORR Cruise 5/ Total Length 100/ cm. La Core condition EXCELLENT Physiographic location Lithologic Lithologic Restruct	3 1	9 18		50-61		a few, faint light gray mottles scattered throughout and one outstanding, very pale brown, foram-rich burrow	spans entire liner at 55 cm firm, slightly silty lutite with forams common in bur-	S, textural	01-1001. HIGHY CALC CLAY WITH LAMINATIONS OF DETRITUS/HIGHLY CALC. CLAY CRAPES TO CALC CLAY MITH LAMINATIONS OF DETRITUS	TO GALC DOZZE TO CALC DATA THE LIBERTING OF DELETE TO GALC DOZZE TO CALC DATA TO THE TANK OF THE TANK DETAILS S1-75 CM: also an excellent.	well-defined form-rich, very pale brown burrow (I cm wide) 77-78 cm: from there on a series of silt lamina-		are found: 80 cm, fine and somewhat irregular; 100 cm; 286 cm, again irregular in thickness; 320-321 cm,	Tusty, yellowish-prown and concave upward; 350-35/ cm, I cm thick; 345-355 cm, 2 to 3 mm thick a lom intervals;	99-4 cm, 1. cm wise, dissolved by coing tonicate down ward); 37-390 cm - many thin, distorted laminations; 396-37 cm - slightly coarser than the ones above (1 cm	thick), very similar ones found 417, 420, 426, 440, 442, 465, 475, 478, 484, 487, 491, 518, 520 cm and so	on throughout the unit: there is a lightening in the color of the matrix sediment in a heavily y burrowed	zone (gray and pale brown) 830-1000 cm. Near the ba of the core the small mottles have a rusty, freekle-	like appearance.	
	<b>.</b>	1   1   1   1   1   1   1   1   1   1			111111	1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	111			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	111								1/1	980
		sterial I	Smoters  Of a tomposite  Sponges  Sponges	2 3 tr tr	1 1 tr tr	7 tr tr tr	50 tr													
Core No. 13 EG. Station No. 36 139	ANCES (	Biogenous Material	Effeconomic servences sboronate ers	4 50	10 48	1 20	5 tr			+										
STATE OF NO. COPE NO	ESTIMATED	Inorganic Material	Detrital Micronodules Zeolites Volcanic Shards Clay	17	07	tr 69	tr tr													
Ship: KNR Expedition 51			LEVEL TYPE	calc ooze tr	calc ooze tr	highly 130 calc clay 3	calc coze/ 139 derritus 45													

Core No. 1764 39

Page 2 of 2

Sta Leg

15 Ship Funte Cruise Detailed Description

Lithologic L09

8

61-1001 (cont.)

NOTE: Due to the density of laminations throughout the unit, only a portion of the features are depicted in the lithologic log.

moist, slick, cold cream-like luttice with silt laminations mentioned above, grades slowly to more compact, slightly silty lutite, then to somewhat stiff, silty lutite with scattered forams in the zone 780-1000 cm.

end of core

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Page 1 of 2

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

K Expedition Shitp:

Core No. 17 CPC Station No. \_\_

Leg No.

1001 Total Core Length

ES |

					EST	ESTIMATED ABUNDANCES (%)	D AB	NDA	CES	2			-	1
		Inc	rgani	Inorganic Material	erial		1	8	poer	ons )	ateri	9		1
			Silt &	& Sand	P			S	Calcareous	Sno	lcareous Siliceous	511.	ceou	S
LEVEL	SEDIMENT	[63) variable	cronodules	selffes	shards	Clay	2m6107	sitzzotonn	spodoae	scoasters	suay	smote	einslotb	oudes
-	calc ooze	, De	W _	z	۸	0,	oc	N S	d :	10	10	10	В	is i
50	calc ooze	1	b			42	4	45			00			
09	calc ooze	2	1			82	5	87			-			
99	highly calc clay	9	ä			77	ä	80						
120	highly calc clay	9				82	1				oc			
200	highly calc clay	9	Ħ			79	-	6			,			
300	highly calc clay	4	12			80	Ţ,	7			6			
313	calc clay	9	2			80	Ħ	2			7			
373	detritus/hly	75				2	ä				20			
397	detritus/hly	74				3	-		ä		22			
495	calc clay	2	Ħ			68	Ħ	4			2			
200	highly calc clay	5				77	Ħ	3			15			
009	calc clay	9	t			80		2			12			
625	detritus/hly calc clay	74				3	1				22			
(cont.)														

end oftene 1001cm.

Persone 1901.

Page / of /

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Cruise 5/ Leg 3 Sto. 39 Core No 17Ple- 9 cm. Lat. 66' 165' Long 12:30.2' Depth 2505m um. Excellent Date Described 14 min/6 by Brake.		NOTE: Due to a repetative sequence of similar lithologies	this core is suspected to be an example of multiple penetration (pilot rebound) recovery	0-15 CALC 00ZE 10 VB 6/3 no.10 home grades to 6/3 home	control pair outside gastern through the colors above through the zone 6-15 cm (a few light gray mottles are also included) firm, slightly silty lutite with scattered forams 5, horizontal [5-37] [6-37] [7-37] [7-37] [7-38]	a few faint, pale brown mottles near top of unit, otherwise homogeneous throughout		37-68 CALC OOZE GRADES TO CALC CLAY	10 YR 5/2 grayish brown grades to 4/2 dark grayish brown extensive, pale brown and grayish brown mottling and	burrowing throughout slightly silty lutite grades to smooth, slick lutite with forams exclusively in burrows and mottles Very Sharp, slightly frregular	68-74 CALC GOZE 10 YR 5/3 brown	common, pale brown mottling and marbling throughout firm, slightly silty lutite with scattered forams	S, irregular 74-89	CALC 002E 10 YR 6/2 light brownish gray	a rew, pare brown and gray mottles at top of unit, then homogeneous to base	forams forams	end of core				
Ship MORL Cruise Total Length 89 c Core condition — EM	Lithologic	They bear and the same	31	25	2900000		Permine and of the Desir						un		ımı	<b>T</b>	mr.		· · · · · · · · · · · · · · · · · · ·		<b>,</b> ,,,,
		E		Siliceous	sectoria Sectoria					tr			1								
				Mate	)fyers	14	10	2	9	6											
	,	1001	96	Biogenous Material	2195eoas ters																
ORES	8	25	ABUNDANCES (%)	Biogenou	spodo.at					Ħ											
EM	17 GPC		NDAN	Cal	sfizzotonnsk	4	9	55	50	62											
EDIM		Length			Forams	1	5	2	00	00				T	T						
÷:	. 0	2 0	ESTIMATED		Clay	78	82	37	33	24		1		Ť	1	1	1			1	
0.н.	Core No.	Station No Total Core	ESTI	70	shands					-		+	+	+	+	+	-	1	1	-	-
		, –		Inorganic Material Silt & Sand	otnes fol							-	-	+	-	-	-	-	+	+	-
TIONS				S S	2911f092									1	1		-				
CRIP				Silt	es [ubonora th			ä	-	5											
96 86				Ino	Setrital grians	4	2	-	2	2											
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES		Leg No. 3			SEDIMENT	highly calc clay	highly calc clay	calc ooze	calc ooze	calc ooze											
	Ship:	Leg No.			LEVEL	200	800	830	906	1000											

Page 1 of 3

VISUAL CORE DESCRIPTION

Cruise ST Leg T Sto. 41 Core No. 19-GPC.  12 cm. Lot 56 / 729 'M Long 'P. 3/3 'W Depth 2535 Core. A.  Excertent  Recent Theorem Poscribed Page No. 77 An energy An ene	Detailed Description		0-9	10 YR 62 pale brown	no mottling relatively unconsolidated, silty lutite; forams are common	S, but very disturbed	CALC OOZE 2.5 Y de light brownish gray	staticty makes make the most size as the result of the top 20 cm while extensive intermortiling with the lower unit is predominant in the basal 15 cm	quite common siriy intite; jordan are generally quite common S, mottled	HIGHLY CALC CLAY	2.5 Y 5/2 gray1sh brown a few light brownish gray mottles appear near the top,	and a 5 mm, silghtly distorted lamination of light brownish gray is situated at 70 cm	firm, slightly silty lutite; forams are scattered lightly throughout; noorly defined zone with a num-	ber of very small shell fragments mixed with lutte 73-75 cm (S)	76-133 CALC CLAY WITH LAWINATIONS OF DETECTIVE/CALC CODE	2.5 Y 4/2 dark grayish brown	another 5 mm, 11ght brownish gray lamination and a 2 x 2 cm mottle of the same color appear at 76 cm.	and 96 cm; a partially eroded lamination at 99 cm, and a complete but elightly disturbed lamination	from 102-103 are 5/2 grayish brown	dute smooth, slick cold cream-like lutite with the following experience: thin (% 3 mm), somewhat discrete and the second colors of the	and 124 cm: two larger graded beds (calc ooze/detri-	tus to foram sand) with sharp, erosional basal con- tacts and relatively sharp upper contacts at 95-99	cm and 103-108 cm (S, disturbed)	HIGHLY CAIC CLAY WITH LAMINATIONS OF DETRITUS/CAIC GOZE 2.5 Y 5/2 gravish brown	a somewhat paler hue of the above color is also pres-	ent and the two are intermottled and subtly lamina- ted throughout; in addition, a few rusty, dark yel-	low spots generally with a compact, partly lithified center (calc clay) are found scattered from 220-320	om and more commonly below that to 425 cm
Ship Krukk Cruise S Total Length 1992 cm. L. Core condition Excerted Physiographic Inceptor	Lithologic	Mashume 1 + + +	1 8 1 .	110	8 8 1 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1	12 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4	1 1	7,007	1 . 1	1.		1 1 1	1	1 1 1 1 1 2		1: 1:	1 1 1	1	1 1 1	1 1 1	1 1 1	1	1 1 1		10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
					Siliceous		str	sebuod	-	-		1		1	I	1	1									-	-	1
			5		Silie			smots	+	ä		1			1	1												
					Biogenous Material			syay	0 0	00	4	5																
5	,	1	88	(3)	nous		svat	seoss	a																		1	
CORE	2	31	1	ESTIMATED ABUNDANCES (%)	Calcareous		st	eropo	d ~			1	-	-	1	-	_	_					-	-	+	+	+	-
INENT	17 PG		Total Core Length	BUNDA	3	_	stizz	ofonni	N 55	50	-	50	1	-	-	-	-						-	+	+	+	+	-
. SED	1	2	200	TED A				Forâ	12		1	- 00	+	-	1	+	+					_	-	+	+	+	+	-
1.0.1	Core No.	Station No.	ta]	STIM		_		Cla	20	25	91	36	3		-	+	-						-	1	+	1	-	_
3	3	St	10	W W	teria		spage	tnasfo	٨																			
ONS					Sar		5	91110	z																	1		
CRIPT					Inorganic Material Silt & Sand			crono	H -	-	2	1																
IDE DES		1			Inc		suped	stint: g	2 0	5	2	3																
SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES	KAR	Expedition 51	0.				SEDIMENT		calc ooze	calc ooze	cale clay	calc ooze																
	Ship:	Exped	Leg No				LEVEL		-	25	67	88																

VISUAL CORE DESCRIPTION Ship KNORR Cruise + Lithologic + 0 + Z + 1 + + 1 TE 0001 1400-86 1 Pleustagne 1100 1200-CALC OGGE
2.5 Y 5/2 graytsh brown (breever, this unit is distinguished by the similar to the one above 425 cm)
as before, there are two shades of grayish brown that appear as very large (20-40 cm) and often sharply contacted laminations: several of the dark yellow, mays spots of very compact luttle show up again between 900-1010 cm compact, slick lufits; some zones of scattered forams do occur in the generally quite smooth sediment; again, fine laminations of silt are spaced anywhere from 1-15 cm apart down the core
2 good-sized (2.%2), fairly angular pebbles: 665 and 688 cm Core No. 19-GPC form - ne forams or rusty, dark yellow spots: the laminations of silt are still numerous and two large, somewhat disturbed beds of well-sorted silt at 478-484 and 509-516 cm NOTE: Initial shipboard description indicates that numerous (at 5 cm) hydrotrollite layers were present throughout unost of this core immediately after extrasion. Notable zones devoid of these layers were 0-160 cm and 460-660 cm. Page 2 of 3 very similar to above unit but smoother and more unicompact and fairly smooth, slick lutte; a few compact and fairly smooth, slick lutte; a few forams are scattered throughout with the following exceptions: fine slit laminations similar to above unit at 150, 176, 220, 226, 245, 338, 280, 316, 312, 331, 334, 337, 359, 375, 387, 400, 400, 400, 411 and more HIGHLY CALC CLAY WITH LAMINATIONS OF DETRITUS! HIGHLY CALC CLAY WITH LAMINATIONS OF DETRITUS/ Detailed Description Leg I Sto. 41 FLOW IN of above material 2.5 Y 5/2 grayish brown no mottling VISUAL CORE DESCRIPTION CALC OOZE end of core 654-1140 3 Ship KNORR Cruise 1 1 1 1 1 1 1 Lithologic 1 1 1 4 4 + + 1 +0 + 1 1 1 1 1 + + + 800 1000/

Core No. 19-6Pc

Sto. 41

Leg III

Detailed Description

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 2 of 2

CORES
SEDIMENT
W.H.0.1.
DESCRIPTIONS
SLIDE
SHEAR

SEDIMATED   ALGORDANCES (1)   SEDIMATED   ALGORDANCES (2)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED   ALGORDANCES (3)   SEDIMATED	SEDIMENT   SEDIMENT   SEDIMENTED ADMINUES (1)   STITMETED ADMINUES (1)   STITMETED ADMINUES (1)   STITMETED ADMINUES (1)   STITMETED ADMINUES (1)   STITMETED ADMINUES (1)   STITMETED ADMINUS (1)	Expedition	51				St	Station No.	9	1	17	1				
ESTIMATED ABUNDANCES (%)  Lingualic Meterial  Lingualic Meterial  Silt & Sand  Silt	ESTIMATED ABLANACES (\$)    Indicated for the state of the	No.	3				Tota	3	ē.	ngth		1492		ES		
1007anic Markeria   1007anic Markeria   1007anic Markeria   1007anic Markeria   110	The man of the state of the sta						ES	¥	ED A8	UNDAN	CES (	2				
**  **  **  **  **  **  **  **  **  **	**  **  **  **  **  **  **  **  **  **			Inor	ilt &	San	Prie			3	careo		ateri	Sili	ceon	S
ae         1         2         34         9         47         2         5         tr           ae         1         39         7         50         4         2         tr           se         70         tr         tr         tr         tr         30         tr           se         70         tr         tr         tr         1         25         tr           se         10         5         70         5         10         10           sy         1         1         10         10         10         10           sy         1         1         1         10         10         10         10         10           sy         1         1         1         1         10	2e	SEDIMENT	D1 >1 00 +1 +1 01		Micronodules	Zeolites	Volcanic	Clay	Rorems	effeeofonneN	pteropods	Discoasters	219410	2mots id	AinsloibeA	Spondes
Se	2e	calc ooze		-	2			*	6	47			(4	5		1
Section   Sect	### 2 LK	calc ooze		-1				39	7	50			4	2		Ħ
Se	Se	highly calc clay		2	1			69	-	22			4			1
Second   4	22   30   4   10   1   55   10   25   25   25   25   25   25   25   2	detritus/		707	:		:	:					95			
ay tr tr 89 1 10  ay 3 78 tr 3 10  ay 3 78 tr 3 16  as 63 1 tr tr 1 tr 35  ay 2 80 tr 3 15  ay 3 tr 2 15  ay 3 tr 2 15  ay 4 1 89 3 7	ay tr tr 89 1 10  ay 3 78 tr 2 10  ss/ ss/ 63 1 tr tr 1 tr 35  sze 65 tr tr tr 1 tr 35  ay 2 80 tr 3 15  ay 3 tr 2 15  ay 4 1 89 3 7	calc ooze/ detritus		30				4	10	-			55			
ay tr tr 89 1 10  say 3	ay tr tr 89 1 10  ay 3	foram ooze		10				5	70	2			10			
ay   3	20   20   10   10   10   10   10   10	calc clay		E	11			68		-			10			
S	S	highly calc clay		5				78	5	-			16			
1   2   2   2   3   4   5   5   5   5   5   5   5   5   5	S	detritus/ calc ooze		63	-		1	t,	-	1			35			1
ay 2 80 tr 2 4 4 1 89 tr 2 4 4 4 1 89 tr 2 4 4 4 1 89 tr 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	ay 3 tr 2  **  ay 3  **  ay 4  *  ampled from rukty, dark yellow inclusion	detritus/ calc ooze		65	:		3	ä		23			35			
* 1 89 3 * * sampled from rukry, dark yellow inclusion	* 1 89 3 * sampled from rukry, dark wellow inclusion	highly calc clay		7				80	ţ	~			15			
* \$ 1 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2	* sampled from rukky, dark wellow inchasion	highly calc clay		3					H	2			15			
* sampled from rukty, dark pellow	* sampled from rukty, dark yellow	calc clay		-				89		~			1			
dark wellow	dark yellow	(cont.)	+													
			*	amp le	d fra	True un		ark	ello		oisu					

		5
1	1	1492
Core No. 19 GPC	Station No. 41	Total Core Length
Ship: KNR	Expedition 51	Leg No. 3

			1		1	IMATE	D AB	ESTIMATED ABUNDANCES (%)	ES (					
		011	inorganic Mate	2	Materia			2	Biogenous	S	Materia		211100011	,
			2116	a Sar	0			2	Calcareous	Sn			Ceol	S
LEVEL	SEDIMENT	하 늘 쪽 때 된 편 Detrital Snisns	Micronodules	Zeolites	Volcanic	Clay	Forams	sitzzotonneN	Pteropods	Discoasters	others	2 smo 1 & t O	StablotbaR	Spondes
495	highly calc clay	9				73		-			20			
109	highly calc clay	3				82	ä	ä			15			
656	highly calc clay	9				70	5	-			23			
754	highly calc clay	7				76	ä	2			15			
948	calc clay	1				98		-			12			
943	highly calc clay	9				89	Ħ	7			19			
1033	detritus/	69			-1	5	1	5			30			
1050	highly calc clay	2				79	H	1			15			
1138	highly calc clay	00				89	-	2			21			
			T											

Page 1 of 1

Ship KNORR Cruise 51 Leg JE Sta. 41 Core No. 19-PG.
Total Length 82 cm. Lat St. 17.9 'N Lang 12 31.3 'N Depth 2535 cerr. m.
Core condition Excellent Dote Described 85 Jul. 76 by H. Farner
Physiographic location Removed TROWARM EASTERN North Analytic Lithologic

10 YR 6/3 pale brown a thin lamination of 5/3 brown appears at base of unit relatively compact, silty lutite; forams are common; a zone of very small shell fragments stretches along the core liner from 0-3 cm Detailed Description CALC OOZE 0-3 1011 Bottom of with - 00/

CALC OOZE

2.5 Y 6/2 light broamish gray
a few grayish broam mottles are present in the zone
10.17 cm, while the base of the unit from 40.60 cm
is extensively mottled in a similar color
firm, compact, fairly silty lutite; forams or other
fine-grained biogenic material are fairly common
S, but distorted

CALC 002E
2.5 Y 6/2 light brownish gray
a distorted sliver of 10 YR 6/3 pale brown lies at
the upper centact; a few grayish brown mottles
appear in the zone 62-64 cm and a similar marbling
in the basal 4 cm
in the basal 4 cm
in the large slity lutite; forams or other biogenic
material are fairly common

end of core

After comparison with the giant piston core, the contact between the two units described at 60 cm appears questionable and probably represents a repeneration of the pilot core.

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

19 PG 41 Station No. \_ Core No. 51 KNR Expedition

		Siliceous	Radiolaria	נו	Ħ	Ħ	2	
	al	Sili	Smotefu	2	Ħ		5	
	Biogenous Material	T	0thers	2	-	5	-	
96	Snor	Sno	Discoasters					
CES (	ioger	Calcareous	Pteropods					
UNCAN	80	Cal	sffssolonnbN	20	50	22	90	
ESTIMATED ABUNDANCES (%)			Forams	7	00	2		
IMAT			Clay	35	14	69	07	
EST	Inorganic Material	Ð	Volcanic					
	c Mat	Silt & Sand	Zeolites					
	rgani	Silt	Micronodules	1	ä	Ħ		
	Ino		Detrital grains	1	ä	2	-	
			SEDIMENT	calc ooze	calc ooze	highly calc clay	calc ooze	
			LEVEL	-	28	mottle 59	81	

t

OCHIHO

E

82

Total Core Length

Leg No.

The second secon						

Page / of /

se 57 Leg III Sto. 4/ Core No. 2275.
cm. Lat. 52\*1614 Lang. 22\*324 Depth. 2930#Larg.
204612241 Date Described 3.78676 by 4.8644.
n. ALEMAL TANGEL. EXIGUENT Cruise 57 Physiographic location\_ Total Length 84 Core condition \_

CALC OOZE -0-12 Parkers Loy 1 1 000 Lithologic

Detailed Description

intermottling and marbling of the three colors above in 10 KR 7/3 very pale brown, 10 KR 6/3 pale brown, 10 KR 5/4 brown an irregular fashion firm, silty lutite with abundant forams G, irregular

CALC OOZE

Te

10 YR 6/2 light brownish gray slight grayish brown (5/2) burrowing near unit basal contact

firm, compact, silty lutite with scattered to abundant forams

S, horizontal 22-28

But of all the

- 00/

and mottling moist, slick lutite as a matrix with silty, foram-rich material in the burrows 10 YR 5/2 grayish brown complete and extensive light brownish gray burrowing CALC OOZE

10 YR 5/2 grayish brown, grades to 6/3 pale brown several very pale brown burrows and laminations (1 cm wide span entire liner at the intervals 49-50 cm, 54-55 cm, 62-63 cm, 66-67 cm mostly slick, moist lutite with few forams throughout; lutite within laminations and burrows is more compact and has abundant forams a few, fine, slity inclusions and lenses found 28 cm, 30 cm, 35 cm, 61 cm CALC CLAY WITH INCLUSIONS OF CALC OOZE/DETRITUS

end of core

## SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

84 22 FF 41 Total Core Length Station No. \_ Core No. KNR 51 Expedition Leg No. Ship:

E

		sno	Spondes	-			1			-					-
		Siliceous	Radiolaria											1	1
	lal	511	2mots tO	2	-	ä		Ħ							
	Material		279410	2	4	2	30	2	9						
8			Discoasters												
CES (	Biogenous	Calcareous	Pteropods		Ħ			ij							
UNDAN	80	Cal	2 f i 2 2 0 7 on n 5 M	09	55	9	4	50	9						
ESTIMATED ABUNDANCES (%)			2m&107	12	15	-	Ħ	12	6						
IMAT			Clay	24	23	98	21	33	83						
EST	Material	P	Volcani. Shands												1
	c Mat	Silt & Sand	Zeolites												
	rgani	Silt	Mi cronodul es			Ħ									Ī
	Ino		Detrital Sains	5	1	2	45	Ħ	2	T					1
			SE JI MENT TYPE	ezo.	ooze	lay	oze/ us	oze	clay						-
			IC38 YT	calc ooze	calc o	calc clay	calc ooze/ detritus	calc ooze	calc c						
			LEVEL	1	15	32	35	99	83						

Poge 1 of 1

Ship KNORR Cruise 51 Leg I Sta 41 Core No 23 FF

Total Length 84 cm. Lat 54 16.8 14 Lang 12 33:2 4 Depth 2737 catem.

Core condition Excellent Date Described 15 we I/by H. FARMER Physiographic location Rockall Trough

Detailed Description VOLD -1-15 0-1 104 feet of the transfer of th 200

Lithologic

CALC COZE
2.5 Y 6/2 Light brownish gray pales with depth mortised with lower unit from 13-18 cm very silty lutite, forams are common Sharp, but very mottled +

1

40

CALC CLAY

2.5 Y 5/2 grayish brown

2.5 Y 4/2 dark grayish brown distorted laminations of 2.5

Y 4/2 dark grayish brown appear from 20-27 cm and 32-37

Y 4/2 dark grayish brown helpe 37 cm

En; sediment is very uniform below 37 cm

Slick lufter with few forans interrupted by foran sand inclusions (23 cm, 26 cm) and distorted beds (19-21 cm and 28-31 cm)

50 cm - small pumice fragment in lens of fine calcetrical sile 1 14 1 1 4 + 14 + + 1 4

1414 a core M 80-

8

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1

4 T 3 end of core

749

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

86 Total Core Length 23 FF 15 Station No. Core No. KNR 51 Expedition Leg No. Ship:

		SI	sabuods	t,				
		Siliceous	Radiolaria					
	٦	Sil	Diatoms	tr				
	Material	П	others	Ħ	10	2	10	
( e	S	1 1	Discoasters					
CES (	Biogenous	Calcareous	Pteropods					
ESTIMATED ABUNDANCES (%)	80	Cal	2 f i 2 2 0 1 on n 6 M	50	t	tt	Ħ	
D ABI			Porams	∞				
IMATE			CJay	42	68	ŗ	89	
EST	1	P	Volcanic	נ		100		
	C Mat	& San	Zeolites					
	gani	Silt & Sand	Mi cronodul es	b				
	Inor		Detrital snisyp	Ţ	-		-	
			SEDIMENT TYPE	calc ooze	calc clay	pumice fragment	calc clay	
			LEVEL	2	22	50	85	

Ship KNORR Cruise 5/ Leg TL Sto. 4/ Core No. 24 FF.
Total Length 85 cm. Lat. 36 /6.6 N Long. 12 33 2 W Depth 2145 cogs m.
Core condition EXCELLENT Date Described 2 June 760y H. Ference Physiographic location Recurate 7 ROWER

TTTTTTTTT Lithologic 607

0-5

Detailed Description

CALC OOZE VOLD 2-16

intermottling of above colors and of lower unit near 10 YR 6/3 pale brown, becomes darker at depth with laminations of 5/3 and 4/3 brown at 9-11 cm and 14-16 cm

11110

+ + 71 9

basal contact fairly consolidated, very silty lutite; forams are abundant

Sharp, mottled

00

1

+ 0

1

CALC 002E 10 YR 7/2 light gray grades to 6/2 light brownish

very subtle, yellowish mottling near top and subtle variations of primary color lower in unit fairly consolidated, very silty lutite; forams are common throughout except foram sand from 20-21 cm Sharp, mottled

141

HIGHLY CALC CLAY

Messtrane

8

10 Y8 5/2 dark graytah brown
10 Y8 5/2 dark graytah brown
1arge mottles from above are scattered down to 47
cm; very fine, light gray mottles are predominate
from 47-53 cm; at 71 cm a light brownish gray
burrow spans the core
compact, slightly slity intite with common forams,
becomes smoother with fewer forams with depth
68 cm - small, round, bright red-brown inclusion in
center of core; 76 cm - black and red-brown nodules
along edge of liner

end of core

-

751

SNEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. KNE 3 Expedition Ship:

Station No. \_

24 FF

Leg No.

88 Total Core Length

E

S S G P L F O C H L H S

		Inol	rgani	Inorganic Material	erial			al Biogenov	960	OUS P	Biogenous Material	-		
			Silt	Silt & Sand	Đ			3	Calcareous	Snc		Stl	Siliceous	S
LEVEL	SEDIMENT TYPE	Detrital garing	Micronodules	Zeolites	Volcanic sbraids	Clay	Forams	2[1220]onnsN	Pteropods	Discoasters	0.thers	2mo1610	Radiolaria	Spondes
	calc ooze	2	t			07	6	67	-		-	Ħ	Ħ	
	calc ooze	Ħ	3			94	-	20			ä	Ħ		
	calc ooze	tī				50	2	3	ţ		-	ä		
	slightly cald clay/Mn	T.	*67			50		r.			-			
	slightly cald	-	* 87			50		1			1			
	highly calc clay	3				81	£	_			21			
		* clay	coa	w bes	* tay coated with some oxide - similar to Man	ле ох	lde -	Simi	lar	F 01				

Page / of /

Ship cm. Lar Total Length 9/ cm. Lar Cruise 5/ Ship MARR

Physiographic location\_ Lithologic

Detailed Description

CALC COZE

10 YR 6/3 pale brown, grades to 5/2 grayish brown
common intermotiting of the two colors above
firm, silty lutite with abundant forams, especially
in motite pockets
\$, itregular 8-0

8-26

CALC OOZE
10 YR 7/2 light gray, grades to 6/2 light brownlsh gray
extensive burrow-mottling 15-26 cm
firm, slightly slity lutte with abundant forams concentrated in burrows
6, mottled
26-72

I Pleymone

CALC GOZE WITH DETRITUS
10 YR 5/1 grap,
a few, faint, light brownish gray, elongated burrows
are found spaming liner throughout
much smoother, very slightly silty lutite with only a

very Sharp, slightly inclined few forams

CALC CLAY WITH ZONES OF CALC OOZE/DETRITUS

10 YR 5/1 gray
repeated and inclined, somewhat graded beds of forams
and slit span the zones 72-76 cm, 79-81 cm, 82-83 cm
as above; smooth lutite with few forams, but beds are
coarse at base to fine foram (fractured) sand at top

end of core

753

### SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

16 25 FF 15 Total Come Length Station No. \_ Core No. XX. 3 Expedition Leg No. Ship:

E

		S	Sapuads	-	2			
		Siliceous	Radiolaria	t				
	[8]	541	2mots fd		2			
	ateri		219470	2	35	3	9	
26	Biogenous Material	Sni	Discoasters					
ES (	ogen	Calcareous	pteropods					
ESTIMATED ABUNDANCES (%)	8	Cal	2 [ † 2 2 0 1 0 n n b N	55	15	12	2	
D ABL			2meno1	12		45	T.	
IMATE			CJay	27	25	15	88	
EST	erial	P	Volcanic					
Micronodules and a series and a								
	Inor	S	Detrital	2	20	30	4	
			SEDIMENT TYPE	calc ooze	calc ooze	calc ooze/	calc clay	
			LEVEL	1	07	74	06	

Ship KNORK Cruise 51 Leg IL Sta. 41 Core No 26 FF
Total Langth 51 cm. Lat 56 66 N Long 12 340 WDepth 2962 cme. M.
Core condition Excellent
Physiographic location Reckare Tracks

Detailed Description Lithologic

0-10 911

CALC 002E

10 YR 6/3 pale brown with distorted laminations of 5/3 and 4/3 brown (3 cm, 5-6 cm, 9-10 cm)
small mottles and large, tube-like burrows are common from 5-10 cm
firm, very silty luttle with numerous forams
Sharp, somewhat mottled 10-51

1 1

++++

1

11

7

1

1

me of the

3

1

1

+ 1

20 -

10 1

10 YR 6/2 light brownish gray several large, slightly darker mottles appear in top 8 cm and a few, very small mottles are scattered throughout compact, slity luttle with scattered torans; forms become larger and fairly abundant in lower 8 cm CALC OOZE

end of core

100/

4

755

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

26 FF Station No. \_ Core No. N N 21 Expedition Ship:

Total Core Length

Leg No.

5

Biogenous Material
Calcareous Siliceous ESTIMATED ABUNDANCES (%) s Inorganic Material Silt & Sand S SEDIMENT

						_	-	-	-	-	-		 *	 	
2boudes			Ħ	Ħ											
Radiolaria	Ţ,	ä	Ħ												
2mots t0	Ħ	Ţ,	Ħ												
0thers	ä	5	-	1						1					
Discoasters															
pteropods		Ħ				T			T	1					
s [ t 2 2 0 1 on n 6 M	90	43	53	09											
Forams	2	3	9	2				T	T						
Clay	7	53	07	36											
Volcanic									T						
Setffoes															
Micronodules	-	-	Ħ						1	1					
Detrital grafins	13	5	Ħ	-											
TYPE	calc ooze	calc ooze	calc ooze	calc ooze											
LEVEL	1	6	17	50											
	1			_	 	1	1_	1	1		-	 	 -	 L	1

Page / of 2

Ship ANORA Cruise 51 Leg II. Sta. 42 Core No. 31 GPC.
Total Length 12% cm. Lat 56 13.4 A Long 12 38 o in Depth 2619 Cone. A.
Core condition EXECUTENT Date Described 1 MAY 26 by 41 FARMER
Physiographic location Recent Traush North Arthuric

Detailed Description Lithologic

o-32 CALC OOZE 0-8 VOID >44<sub>4</sub> 507 Mersinan

10 YR 6/3 pale brown no mottling, but a few gray and dark gray laminations medium size foram sand Sharp, but non-planar (either disturbed or erosional) 100/

LAMINATIONS OF SLIGHTLY CALC CLAY (5 Y 4/2) AND CALC CLAY (5/2)

5 Y 4/2 and 5/2 olive grays: varying hues of the above colors appear as large bands (5-20 cm wide); six 5 mm laminations (somewhat distorted) of 5 Y 6/2 light olive gray are present between 37-48 cm; light olive gray also appears in a layer band from 2/8-281 cm (calc core)

mottling is scarce, but very fine olive gray (4/2) flecks show up in some of the lighter colored bands at 37-48 cm, 71-90 cm, 160-170 cm, 200-212 cm, 274-305 cm

4

1007

the darker bands are a smooth lutite with few, if any, forams, whereas the lighter ones tend to be silty yith scattered forams; occasional laminations or pockets (distorted laminations) with common forams packets (distorted laminations) with common forams and fine sand appear at 21,-224 cm and 252-257 cm and it is and any of the contacts between bands are concave up or disturbed slightly in some other manner 5, distorted

5 Y 7/2 light gray and 6/2 light olive gray, probably originated as distinct laminations but are severely NANNO OOZE

300

Hers byone

flow-in of above unit very silty lutite CALC OOZE

400

580

no mottling

end of core

757

VISUAL CORE DESCRIPTION

Core No. 31 GPC Leg IF Sto. 42

Page 2 of 2

Lithologic

Detailed Description

+ **6** 200

Ship KNORR Cruise 51

006

 $\succeq$ 

-4

700

3 +

H

800

Page 1 of 1

Total Length 124 cm. Lat 56 13.4 N Long 12.38.9 N Depth 26/19 care. Core condition Excellent Date Described 2 May 26 y H. Framer Physiographic location Rockall Treush Noath Atlantic Lithologic	רפותווים הפארווים		- VOID 3-72	CALC OOZE 10 YR 6/3 pale brown grades gently to 6/2 light brown-	ish gray: in the basal 5 cm, this grades sharply to	5/2 grayish brown and is marbled somewhat with the sediment above: two 5 mm laminations (slightly disturbed) at 6 and 8 cm are brown (5/3) in general, the colors are smooth, except for some cinermotiting from 19-25 cm compact, silty lutite  72-124.5 CALC 0425	2.5 Y 6/2 light brownish gray grades to 5 Y 6/2 light olive gray (91 cm)		- narrow brown laminations appear at 82 and 83 cm	compact, sirey natice												
Total Length // Core condition // Physiographic loc	Log	1	1	+	1	<sup>4</sup>	1 1	} 	+	1 1	+	and of conc										
	0 cm	Heistrome		25 -		75 SO 20			-00/		plexbure											
					Sn	sabunde	Ħ															
			E		Siliceous	Radiolaria																
				10.00	Si	Diatoms											4	-				
				Mato		0thers	7	2	31	4	0	-1	tr	-			4	-	+	-		
KANR Core No. 31 GPC		1 3	(0)	Riccong Material	eous	Discoasters			-				-		part G0	-	+	+	+			
31 GPC	42	+	U 2018	Biog	Calcareous	Nannofossils Pteropods	ы		-	-	ы	2	75	+	ateri	-	+	+	+		-	
31	4 .		oral core Length	ND ON	1	2 Smano7	98 tr		1	tr 2	7		-	-	of silty materiel		-	-	-			
9	No.	2	e core	3	-	Clay	6	86	-		II.		22 3		of si			+	-			
Core No.	Station No.		OCAL	2 2			-	0	-	6		tr 4	24	-	tion		-	-	-		-	
				40	Silt & Sand	Sarriosz							-	+	lammanation		+	+	-		-	
				anic	t &	Ai cronodules Zeolites			1				-	+	fine 1	-	-	+	-		-	
	1			non	Si	safubonova iM			1	++			+	-	from f		-		+			
		1				Detrital	-	ż	89	17	96	-	5		***							
1		,				SEDIMENT	calc ooze	slightly	calc ooze/	calc clay	detritus	calc ooze	nanno ooze									
Ship: XAR	tton	- Charles	9			35	c a	sli	c a	c a	P	Ü	ci ci	+				-			-	

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

TYPE  TOTAL CORE Length  SEDIMENT  S	Total Core Length 124 Cm  Total Core Length 124 Cm  ESTIMATED ABUNDANCES (%)  Linorganic Material Sand Grands  Silf & Sand Gra	Total Core Length  TOTAL Core Length  TOTAL Core Length  Lordanic Material  Silit & Sand  Lordanic Material  Silit & Sand  Silit	Total Core Length  TOTAL Core Length  TOTAL Core Length  Linemanic Markerial  Sill & Sanderial  Sill & Sanderial  Sill & Sanderial  Sill & Sanderial  Sill & Sanderial  Sill & Sanderial  Sill & Sanderial  Sill & Sanderial  Sill & Sanderial  Biogenous Material  Biogenous Material  Sill & Sanderial  Si	Expedition	51	1			Sta	Station No.	9.	4	42	,				
ESTIMATED ABUNDANCES (*)  Toganic Meterial Silt & Sand Granic Anterial Silt & Sand Granic Sheerial Sheerial	ESTIMATED ABUNDANCES (*)    Toganic Material   Silt & Sand   Sand	ESTIMATO ABUNDANCES (*)    TOPE	ESTIMATO DAUGES (*)  LIT TT TO Detrital Single Bundonces (*)  LIT TT TO Detrital Single Bundons		3				Tot	a) Co	re Le	ngth		124		C		
Inorganic Material  Sinterial Sinter	Type   Colored	Type of the state	Inorganic Marina Inorga				1		ES	TIMAT	D AB	JNDAN		96				
Silf & Sadiolaria  1	Occupies Site Sand Sand Sand Sand Sand Sand Sand Sand	1   2   0   0   0   0   0   0   0   0   0	Silfering Signature Signat			Ino	rgani	C Mat	erial			80	iggen	S	ater	اعا		
1	THE MATERIAL STATES AND A STATE	The state of the s	1				Silt	& San	P			Cal	careo			Sil	iceou	S
coze         2         34         1         60         3         tr           coze         tr         tr         43         2         54         1         tr         tr           coze         2         tr         50         2         43         3         tr         tr           cooce         1         30         2         66         1         tr           cooce         1         tr         30         2         66         1         tr           cooce         1         tr         1         tr         1         tr	coze         2         34         1         60         3         tr           coze         tr         tr         43         2         54         1         tr         tr           coze         2         tr         50         2         43         3         tr         tr           coze         1         tr         30         2         66         1         tr           coze         1         tr         30         2         66         1         tr	ooze         2         34         1         60         3         tr           ooze         tr         1         36         1         60         2         tr           ooze         2         tr         50         2         43         3         tr         tr           ooze         1         tr         50         2         43         3         tr           ooze         1         x         5         6         1         tr         r	ooze         2         34         1         60         3         tr           ooze         tr         1         36         1         60         2         tr           ooze         2         tr         50         2         43         3         tr         r           ooze         1         r         50         2         65         1         tr         r           ooze         1         x         30         2         56         1         tr         r	SEDIA	ENT SE	Detrital Sarang		Zeolites	oinsoloV sbasids	Clay	Rorams	s[issolonn <b>s</b> N	pteropods	Discoasters	others	Diatoms	StrafotbaR	Spondes
ooze         tr         1         36         1         60         2         tr           ooze         tr         43         2         54         1         tr         tr           ooze         2         tr         50         2         43         3         tr         r           ooze         1         30         2         66         1         tr	002e         tr         1         36         1         60         2         tr           002e         tr         43         2         54         1         tr         tr           002e         2         tr         50         2         43         3         tr         r           002e         1         30         2         66         1         tr         r	002e     tr     1     36     1     60     2     tr       002e     tr     43     2     54     1     tr     tr       002e     2     tr     50     2     43     3     tr     tr       002e     1     30     2     66     1     tr       002e     1     tr     1     tr	ooze         tr         1         36         1         60         2         tr           ooze         tr         43         2         54         1         tr         tr           ooze         1         tr         50         2         43         3         tr         tr           ooze         1         30         2         66         1         tr	calc ooz	ze	2				34	-	09			3	Ħ		Ħ
ooze         tr         43         2         54         1         tr         tr           ooze         2         tr         50         2         43         3         tr         rr           ooze         1         30         2         66         1         tr         rr	002e         tr         43         2         54         1         tr         tr           002e         2         tr         50         2         43         3         tr         rr           002e         1         30         2         66         1         tr         r           1         30         2         66         1         tr         r         r           1         1         1         1         tr         r<	002e         tr         43         2         54         1         tr         tr           002e         2         43         2         43         3         tr           002e         1         30         2         66         1         tr           1         5         5         6         1         tr         1           1         5         6         1         tr         1         tr           1         6         1 <td>002e     tr     43     2     54     1     tr     tr       002e     2     43     2     54     1     tr     tr       002e     1     30     2     56     1     tr       1     30     2     56     1     tr       1     1     1     1     tr       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1</td> <td>alc oos</td> <td>se</td> <td>tr</td> <td>~</td> <td></td> <td></td> <td>36</td> <td>7</td> <td>09</td> <td></td> <td></td> <td>2</td> <td>tr</td> <td></td> <td></td>	002e     tr     43     2     54     1     tr     tr       002e     2     43     2     54     1     tr     tr       002e     1     30     2     56     1     tr       1     30     2     56     1     tr       1     1     1     1     tr       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1       1     1     1     1     1	alc oos	se	tr	~			36	7	09			2	tr		
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Ship Kulark Cruise 54 Leg 6 Sta 19 Core No. 5-Bc.
Total Length 39 cm. Lat 58'26' N. Long 0'28' E Depth 136 cm. meters
Core condition Excertent Date Described 20 Min 12 by 41 Frence.
Linhologic

Detailed Description 007

0-30
CALC COZE/DETRITUS
5 Y 4/5 clive gray
5 Y 4/5 clive gray
5 Y 4/5 clive gray
6 Y 1/2 clive gray
7 Puller hammericon in top 5 mm
5 very unconsolidated sand and silt in lutite matrix
8 very disturbed
30-39
CALC COZE/DETRITUS
10 Y F 5/1 gray
numerous, small, lenticular, black mottles (pyriterich) appear throughout
rich) appear throughout
smooth, vell sorted, fine silt

0/

NOTE: Core represents subsample of box core end of core

> 1 + M my of core:

39 cm

Neistane

+ 13

7

7

70

764

## SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

LEVEL SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SEDIMENT  SANDANCES  SOCIATION  MACROPHORIS  SOCIATION  MACROPHORIS  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  SOCIATION  SOCIATION  MACROPHORIS  MACROPHORIS  MACROPHORIS  MACROPHORIS  MACROPHORIS  MACROPHORIS  MACROPHORIS  MACROPHORIS  MACROPHORIS  MACROPHORIS  MACRO	Ship: Exped	Ship: ANORH Expedition 54	1,			Sta	Core No Station No.	9	2 BC	19		1 1	1 1	1 1
SEDIMENT  SELICOSE  TYPE  TAPE	Leg					Tot	la Co	e Le	ngth .			39	39	39 cm
SEDIMENT  TYPE  TY						ES	TIMAT	D AB	UNDAN	CES (	96			
SOI TARILLOS CONTROL O			Inor	gani	S San	deria			Cal	careo	on sn			Material Siliceous
Ealc coze/ Eatritus  Falc coze/ Falc coze/ Betritus  Falc coze/ Betritus	EVEL	SEDIMENT TYPE		Micronodules	2eJifosZ	Volcanic shards	Clay	Forams	2 fizzołonneN	Pteropods	Discoasters		0thers	
Calcocze/ Betritus Calcocze/ Calcocze/ Getritus	1	calc ooze/ detritus	50				5	15	19				10	10
detritus 35 29 detritus	ttle 37	calc ooze/ detritus	38				25		-				50	50
	36	calc ooze/ detritus	35				59		1				33	33 tr

994

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Page 1 of 1

Ship AnseR. Cruise 54 Leg 6 Sto. 30A Core No. 7 · BC.

Total Length 32 cm. Lat 58 54.9'N Long 4 08.2' E Depth 284 car. makrs.

Core condition Excertent Date Described 30 Nor R. by H. Sharter.

Physical Statement Sea

Detailed Description F = Lithologic 24 607 0 2 0

0-37
CALC OOZE WITH DETRITUS

10 YR 4/2 dark grayish brown grades to 5 Y 3/2 dark

10 YR 4/2 dark grayish brown grades to 5 Y 3/2 dark

10 YR 4/2 dark grayish brown (10 YR 3/2) at 0.5 cm

10 YR 2/2 cm

11 Soft, unconsolidated, very slity/sandy lutite; very samali, ellipsoidal pellets of a composition apparently identical (?) to the primary sediment are abundant throughout; also, numerous, very fine, transparent sploules are scattered throughout the sediment

and of core

30

NOTE: Core represents subsample of box core

Ind out

1

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

7-BC Station No. 30 A Total Core Length \_\_ Core No. KNORR 54 Expedition Ship: Leg No.

5

					EST	IMATE	D AB	ESTIMATED ABUNDANCES (%)	ES (	(%				
		Ino	Inorganic		Material			8	Biogenous		Material	19		
			Silt		P			Cal	Calcareous			Sti	Siliceous	SI
LEVEL	SE DI MENT TYPE	Detrital safang	Mi cronodu i es	sətiloəZ	oinsoloV sbrads	Clay	Forams	sfizzotonnsM	Pteropods	Discoasters	Others	Diatoms	AinsloibeA	Spondes
5.	highly cale clay		• 01			57		1			20	tr		ħ
2.5		10				4.5	cv	m			0.4			t
5	calc ooze with	20				25	CV	12			35			5
36	calc ooze with detritus	20				43		15			20	tr		cu
			*	rryth	everything is slightly stained (Mn or Fel)		ntly	Stain	pa	ri ri	Fe?3			

Page / of /

Ship Kuleak. Cruise 54 Leg 6 Sto. 32 Core No. 8-8c.
Total Length 31 cm. Lat 52 50.5 /w Long 0'41.1 / E Depth 140 cm. makes
Core condition Excelent.
Date Described 1 Dec 76 by 41. FARMER
Physiographic location.

Physiographic location Lithologic

Detailed Description

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A Pro

0-31
HIGHLY CALC CLAY/DETRITUS
5 Y 4/2 olive gray
9114 inangeneous excepting a very subtle, 3mm, oliveyellow lamination at 0.5 cm
soft, unconsolidated, fine send and silt in lutite
matrix; large, 2 cm diameter, rounded stone at 16 cm

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end of core

NOTE: Core represents subsample of box core

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

E Total Core Length 8-BC Station No. 32 Core No. 75 KNORR Expedition Ship: Leg No.

To any to
1
Volcanic shards  Volcan
5 10 10 tr tr
25 8

Page | of |

Ship Knork Cruise 54 Leg Le Sta 44 Core No 9-BC.
Total Length 24 cm. Lat 59° 58' × Long 0° 89' ¢ Depth 124 arr makes
Core condition Excreent
Date Described 10cc 36 by H. Framke.
Physiographic location

Personal Company of the Company of t Lithologic

Detailed Description

F. 8.4

0-24 HIGHLY CALC CLAY/DETRITUS 5 Y 4/2 olive gray homogeneous throughout soft, unconsolidated, fine sand and silt in lutite matrix; large, white fragments of bivalve at 21 cm

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NOTE: Core represents subsample of box core

# SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

					STITCEOU	sinsforb	ВЯ			
		5		a l	2	2mo16	10		tr	
				ater		saeu	30	12	10	
	1	27	(¥	Biogenous Material	Sn	scoasters	10			
3	111		ES (	iogen	Calcareous	eropods	7d			
9-BC	7	ngth	ESTIMATED ABUNDANCES (%)	-	3	sffssofonn	εN	7	10	
1	9	e Le	D AB			Forams		9	2	
Core No.	Station No.	Total Core Length	IMATE			Clay		13	50	
3	Stat	Tota	EST	erial	0	Shards	٥٨			
				Inorganic Material	& San	sətifo	əz			
				gani	1	cronodules	-M			
1	1			Inor		[63 ins grains	eg De	62	75	
MACHEN	45	9				SEDIMENT	highly calc	clay/detritus	highly calc	
	Expedition	6.				35	high	clay	high clay	
:drus	Expec	Leg No.				LEVEL		1	23	

tr tr

Spondes

Page / of /

Ship Kadek Cruise 54 Leg 6 Sto. 48 Core No. 10-86.

Total Length 20 cm. Lat. 60° 21.3′ M Long 1° 58.7′ e Depth 101 cerr. meters

Core condition Excellent Described Like 76 by H. Frederic

Physiographic location Noeth 564 Lithologic

0-20
DETRITUS

5 Y 4/3 olive grades slowly to 4/2 olive gray
no mottling
firmer, fine sand with very little silt; small sea
urchin fragment at 3 cm and numerous small to
large bivalve fragments in basel 7 cm Detailed Description 83 and of core Perspece : Acres -- 20 -

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NOTE: Core represents subsample of box core

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

					Sn	Sebuods		ţ.						
					iceo	BitaloibeA								
		5		-	511	SmotsiO								
				ater		snent0		7						
	1	20	2	Biogenous Material	Sno	Discoasters								
			ES (	ogen	Calcareous	Pteropods								
JB-01	18	ngth .	ESTIMATED ABUNDANCES (%)	.8	Cal	2 [ † 220 Tonns M	tr	4						
1	9	Total Core Length	D AB			Forams		tr						
Core No.	Station No.	5	IMAT			Clay	t.	9						
03	Sta	Tota	ES1	Material	P	Volcanic shards								
						291†109Z								
				Inorganic	ilt	sə [ubononɔ iM								
	1			Inor		Detrital grains	sand 100	sand 85						
KNORR	Expedition 54	9				SEDIMENT	detritus							
Ship:	Exped	Leg No.				LEVEL	1	19						

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Page / of /

Ship Kurks, Cruise 54 Leg 6 Sto. 59 Core No. 13-8c.

Total Langth 26 cm. Lat. 58 25.5' M Long, 1' dea '6 Depth 141 cm. makes

Core condition Escentary Date Described Loc. 36 by H. Farmise
Physiographic location Nex III SEA

Lithologic

0-26 CALC OOZE/DETRITUS 5 % 4/2 olive gray homogeneous throughout very soft, unconsolidated, fine sand and silt in lutite matrix Detailed Description Po

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NOTE: Core represents subsample of box core

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SNEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

5 13-BC Total Core Length Station No. \_ Core No. KNORR 54 Expedition Ship: Leg No.

		2	Sponges	-	3	
		ceo	strafotbas			
	ام	Sili	Diatoms			
	lateri	lcareous Siliceous	279d10	20	20	
2	ous P	Sn	Discoasters			
CES (	iogen	Calcareous	Pteropods			
MDAN	80	2	2 [ i z z o t o n n s M	15	7	
ESTIMATED ABUNDANCES (%)			2m6707	2	15	
IMATE			Clay	14	13	
EST	erial	Silt & Sand	Volcanic shards			
	c Mat	& San	selffoel			
	gani	11	29 [ubonono iM			
	Ino		lettrt90 enterp	45	4.5	
			SEDIMENT	calc ooze/ detritus	calc ooze/ detritus	
			LEVEL	1	25	

Ship KNEAR Cruise 54 Leg 6 Sta. 70 Core No. 16 Bc.
Total Length 44 Cm. Lat. 63° 49.5' M Long. 2 509's Depth 2217 cerr. makes
Core condition Excellent Date Described 2 Bc. 76 by 4 France Physiographic location SULTIMENT TIL YOUNG PLATER NOTWERN SEA Lithologic

10 YR \$/3 brown beveral mail mottles of slightly darker grayish brown appear from 11-20 cm soft, unconsolidated, fine sand and silt in lutite factor, unserous, coarse, sand-size, white shell fragments are present throughout texturally Gradational Detailed Description 0-21 CALC-SILIC 00ZE

Pleymone

10 YR 5/3 brown small mottles (streaks) of dark grayish brown are present throughout

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Persone =

fairly smooth, unconsolidated, slightly silty lutite end of core

NOTE: Core represents subsample of box core

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

16-BC Station No. \_ Core No. KNORR 54 **Expedition** Ship:

5

Total Core Length \_\_

Leg No.

sabuods Biogenous Material
Calcareous Siliceous Radiolaria ω Distoms Others 34 Discoasters ESTIMATED ABUNDANCES (%) pteropods sffssofonnsN 38 25 tr Forams Clay 25 09 Inorganic Material Silt & Sand Volcanic shards 2eolites ţ Micronodules Detrital grains calc-silic SEDIMENT TYPE sale ooze LEVEL 39 Н

1

Page Lot 1

Ship Knoad Cruise 54 Leg 6 Sta. 72 Core No 17-BC

Total Langth 39 cm. Lat 62 209 M Long 0 53.7 E Depth 628 cm. makrs

Core condition Exercent Date Described 2 Mc No H Fractice

Physiographic location Southers To Vering Described 2 Mc No Mesesian Sea Lithologic

Detailed Description

DETRITUS

10 YR 4/2 dark grayish brown

10 YR 4/2 dark grayish brown

10 yer unit from 10-14 cm; also, numerous black

grains scattered throughout

firmish, medium sand with lutite matrix; small black

pebble at 14 cm

2

0

18-39
10 YR 5/1 gray
10 YR 5/1 gray
uniform throughout, except 2 x 2 cm clast of upper
unit at 23 cm
silty lutite

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NOTE: Core represents subsample of box core

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## SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

1	1	39 cm	(2)
Core No. 17-BC	Station No. 72	Total Core Length	COTTMATED ABINDANCES (*)
KNORR	54	9	
Ship:	Expedition	Leg No.	

	Inorganic Mater	lt 8	Sand	1.5	ESTIMATED ABUNDANCES (%) al Biogenou Calcareous	D ABL	S. B.	Biogenous Calcareous	Sus P	ater	MCES (%) Biogenous Material Ilcareous   Siliceous	iceoi	1 2
SEDING STATES OF THE STATES OF		saunnoun 12111	sətifosz	Volcanic	Clay	Forams	2   t22010nnsN	pteropods	Discoasters	Others	Diatoms	Radiolaria	Spondes
detritus 73					80	-1	12			CV.	-		ţ
calc ooze/ detritus 35	1				35		tr			30			tr
	1												

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Page 1 of 1

Ship KNORR. Cruise 51 Leg 6 Sta 76 Core No. 18 - 8c.

Total Length 13 cm. Lat 57° 30.6" M Long 0.20.0" Depth 121 carr meters.

Core condition Excelent Date Described 2 Dec 16. by H. France.

Physiographic location New New SEA.

Lithologic

Chipton Description Detailed Description Chipton 0-13 Chipton

DETRITUS

5 Y 4/2 olive gray
uniform throughout
medium sand with some lutite
end of core

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NOTE: Core represents subsample of box core

# SMEAR SLIDE DESCRIPTIONS - M.H.O.I. SEDIMENT CORES

18-BC	0. 76	Total Core Length 13 cm	
Core No.	Station No.	Total Cor	
KNORR	54	9	
Ship:	Expedition	Leg No.	

					ES	ESTIMATED ABUNDANCES (%)	ED AB	MDAN	CES (	3				
		Ino	rgan	C Ma	Inorganic Material			8	ogen	Biogenous Material	ater	-		
			Silt	& Sar	PL			2	Calcareous	SIN		Sili	Ceon	2
LEVEL	SE DI MENT TYPE	[&itrited zateng	Mi cronodul es	Zeolites	otnacioV sbranks	Clay	2m6107	sfizzotonnsN	Pteropods	Discoasters	0thers	2mots t0	RinsfolbsA	Spondes
7	detritus	85				CV.	CV	7			m	1		tr
	-													

Page 1 of 1

Ship KNORR Cruise 54 Leg 6 Sta. 91 Core No. 21-8C.
Total Langth 24 cm. Lat. 57-412' M Long. 6-57.2' W Depth 1069 cm. meters
Core condition Excertent Date Described 3 De. 76 by H. FARMER
Physiographic location Wiving Thinkship Ribbs, Nerth AttAntic

Lithologic

Detailed Description

0-24 CALC OOZE/DETRITUS 5 Y 5/2 olive gray homogeneous throughout firm, fine-medium sand end of core

SLT

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Cog

Custan.

NOTE: Core represents subsample of box core

SLT

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. KNORR 54 Expedition Ship:

21-BC Station No. \_

Leg No.

42 ESTIMATED ABUNDANCES (%) Total Core Length

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Micronodules  Alectrital Micronodules  Aeolites  Volcanic Shards  Mannofossils  Discoasters  Others  Others  The Distoms			Silt	& San	P			Cal	care	Sn		-	iced
30 15 38 15 2	DIMENT			Zeolites	ornsoloV sbrsds	Clay	2m6197	sfizzolonnsM	pteropods	Discoasters	creat0	Diatoms	Radiolaria
30 15 38 15 2	oose/												
30 15 38 15	tus	44				2	36	10			.7	tr	
30 15 38 15	/ezoo												
	itus	30				15	38	15			2		

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VISUAL CORE DESCRIPTION

Page / of /

Ship Knerk Cruise 54 Leg 6 Sta 92 Core No 22 BC.
Total Length 34 cm. Lat 59° 4/2" M Long 8" 37.5" W Depth 1498 cmc. metrs
Core condition Excellent Date Described 2 Dec 76 by H. Franke.
Physiographic location Neathern Recent Plateau.

Detailed Description Lithologic

Residence O •

0-34 CALC 002E 5 Y 6/2 light olive gray and 5/2 olive gray; inter-5 W 6/2 light olive above colors throughout with a slightly yellowish band from 3-7 cm fairly compact, slity lutite

NOTE: Core represents subsample of box core

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Playbone

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Station No. \_ Core No. KNORR Expedition Ship:

34 Total Core Length ...

Leg No.

E

Biggenous Material
Calcareous Siliceous ESTIMATED ABUNDANCES (%) Inorganic Material Silt & Sand

Sponge	-	tr											
Radiolaria													
oratoms													
0thers	m	10											
Discoasters													
Pteropods													
2[tzzolonn&N	43	04											
2m6107	20	15											
Clay	30	30											
Volcanic shands													
Zeolítes													
Micronodules													
Detrital snisrp	m	5											
SEDIMENT	calc ooze	calc ooze											
LEVEL	7	33											
	-	-	-	 	-	-	-	-	 _		-		-

Page 1 of 1

Ship Known, Cruise 54 Leg 6 Sto. 94 Core No. 24-BC.
Total Length 39 cm. Lat 59 160' M. Lang 13" 6.6' W Depth 1290 cmr. metrs.

Core condition Excellent Date Described 9 Dec 76 by H. Franks.

Physiographic location Rockall PLATEAU, N. ATLANTIC.

Lithologic

Detailed Description

100

Persons

0-22 CALC 002E 5 % 6/1 gray upper 7 cm are slightly browner with a brown mottle at 5 cm soft, silty lutite; small, black, angular pebble fragment at 16 cm 1

several large, gray mottles appear down to 32 cm soft, silty lutite becomes less silty in basal 7 cm  $\,$ CALC OCZE 5 Y 5/2 olive gray, grades slowly to 2.5 Y 5/2 grayish brown

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NOTE: Core represents subsample of box core

end of core

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mt 9 cm

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

24-BC 18 Total Core Length Station No. Core No. KNORR 75 Expedition Leg No. Ship:

Biogenous Material
Saliceous Radiolaria Diatoms 30 0thers Discoasters ESTIMATED ABUNDANCES (%) pteropods s[tezofonneN 28 12 3 Forams 50 09 Clay Inorganic Material Silt & Sand Volcanic Zeolites Micronodules tr Detrital grains SEDIMENT ooze TYPE cale ooze calc LEVEL 38

13

Spondes

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Ship KNASKA. Cruise 51 Leg 6 Sta. 96 Core No. 25-EC.

Total Langth 22 cm. Lat 60 84 N Long 15 14 W Depth 1285 cmr. makes

Core condition Excellent Dote Described 1 12 17 by H. FARMER

Physiographic location Reckall PLATEAL N. ATLANTIC

Lithologic

Person Log

Detailed Description 1

0-12 CALC-SILIC DOZE
10 YR 6/3 pale brown intense brown (5/3) marbling is present from 5-12 cm soft, unconsolidated, very silty lutite
12-25 CALC-SILIC DOZE
10 YR 7/1 light gray small, yellowish-brown mottles appear from 14-16 cm soft, very silty lutite

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NOTE: Core represents subsample of box core

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

25-BC

Core No.

KNORR

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Page 1 of 1

Ship Knerk Cruise 59 Leg 6 Sto 98 Core No 26-8C.
Total Langth 23 cm. Lat 60' SR 7 M Long 16' 55'W Depth 2435 cm. meters
Core condition Exercent Date Described 5 Dec 76 by H France.
Physiographic location Ecelandic Insulae Ruse, North Atlante.
Lithologic

Detailed Description 

0-13
CALC-SILIC DOZE
10 VR 6/3 pale brown
ho mottling
quite soft, very sandy lutite
0, mottled with lower unit
13-20
CALC-SILIC DOZE
10 VR 4/3 dark brown
several mottles of brown and pale brown
several mottles of brown and pale brown
soft, quite sandy lutite; numerous black specks
throughout (ash; from lower unit)
20-23
DETRITUS/VOLCANIC ASH
10 YR 2.5/1 black
bonnegeneous

and a cont

NOTE: Core represents subsample of box core

coarse, ash-rich sand

end of core

792

SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

opedition 54	Station No. 98
eg No.	Total Core Length 23 cm

SEDIMENT TYPE TYPE TYPE TYPE TYPE TYPE TYPE TYP			Ino	roani	Inorganic Material	erial			a) Biogenou	oden	Biogenous Material	ateri	-		
SEDIMENT  TYPE  TY				Silt	& San	P			Cale	ane	sn		Sil	iceoi	2
calc-silic   3   1   1   10   60   2   10     calc-silic   5   2   3   13   15   50   2   10     calc-silic   5   2   3   13   15   50   2   10     defritus/	LEVEL	SEDIMENT TYPE			Zeolites		Clay	Rorams	2[izzo]onn5N	pteropods	Discoasters	snedt0	2mo 16 i O	sinslotbsA	Sponges
calc-silic   5 2 3 13 15 50 2 10	1	calc-silic	~			*	14	10				0	10	1.	7
detritus/ voleanic ash hi hi 1 10 1  voleanic ash ei hi an ei ei ei ei ei ei ei ei ei ei ei ei ei	18	calc-silic	5	CV.		*m	13	15				C.	10	1	3
al dered	55	detritus/ volcanic ash	777			* 77	1	10	1						3
						*	ered								

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Ship Knork Core No. 27 - Bc.
Total Length 50 cm. Lat 63 0.0 M Long 14º 11.9 W Depth 1524 carr meters
Core condition Excellent Date Described 1 Dec 16 by H. Farmer.
Physiographic location I cellange Slave

Lithologic

Detailed Description

0-6
DETRITUS
10 YR 4/3 brown
10 OY H 4/3 brown
10 OY B 5/3 brown
10 YR 5/3 brown
10 OY R 5/3 brown
10 OW B 5/3 brown
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HIGHLY CALC CLAY/DETRITUS 5 Y 4/2 olive gray no mottling smoother, slightly silty lutite end of core

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NOTE: Core represents subsample of box core

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Physical

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

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					ceo	Binsfolbs
		5		-	Clay  Forams  forence	
				SEDIMENT  STITES  STITES  STITES  STITES  STITES  STITES  STITES  STITES  STITES  STITES  STITES  STITES  STITES  STITES  STITES  STOROGUS  FORMS  FORMS  FORMS  STOROGUS  STORO		
	1	50	3	ous P	Sn	scoasters
2	0		CES (	iogen	careo	teropods
27-BC	100	ngth	MDAN		2	sffssofonne
	9	Total Core Length	D A8			Forams
Core No.	Station No.	5	IMAT	SEDIMENT STATES ABUNDANCES (\$)  STATES ABUNDA		
Son	Stat	Tota	EST	rial		
				Mate	Sand	sətifos
				SEDIMENT SEDIMENT STATE ABUNDANCES (*)  STATE ABUNDANCES (*)  STATE ABUNDANCES (*)  STATE ABUNDANCES (*)  SEDIMENT SAND SAND SEDIMENT SAND SAND SAND SAND SAND SAND SAND SAND		
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KNOR	5					E N
ition 54						SEDIA
Ship:	Expedition	Leg No.				LEVEL

ods	7	t,									
Rad											
6 ta											
470		22	25	77							
sta											
Pte											
Nan	tr	3		2							
	35	8		2							
	tr	59	15	24							
Vol		-									
oəz											
Mic											
Det	69	42	09	84							
	detritus	highly calc	highly calc	highly calc							
	1		lump 20								

\*\*\*

Ship Kurar Cruise 54 Leg 6 Sta 101 Core No 28-BC.

Total Length 36 cm. Lat 61° 55.7' M Long 17° 13.2' W Depth 12442 cm. methn

Core condition Excellent Date Described 4 Dec 76 by H. Farmer

Physiographic location Icelandic Insular Rae North AttAntic

Lithologic

Pleus burno :

0

O-36
CALC-SILIC OOZE

A 1/2 olive gray, grades to 4/1 dark gray (~6 cm)
a few subtle mottles appear in lover 10 cm
soft, very sandy lutite
end of core

NOTE: Core represents subsample of box core

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SMEAR SLIDE DESCRIPTIONS - W.H.O.I. SEDIMENT CORES

Core No. 28-BC

KNORR

Ship:

Leg No.				LEVEL TYPE	calc- l silic ooze	calc- 35 silic ooze	-							
9	ľ			<b>+</b>	u	e								-
		Ino		Detrital grains	5	10								
		rgani	Silt	Micronodules										
		C Mat	& San	zej i fosz										
Tot	ES	Inorganic Material	D	Volcanic shards	7	7								
a) Co	TIMAT			Clay	25	20								
Total Core Length	ESTIMATED ABUNDANCES (%)			2m6707	20	10								
ngth	UNDAN	80	3	sfissolonneN										
-	CES (	Biogenous	Calcareous	Pteropods										
36	3	S	S	Shatsbookio										1
1		Material		279A10	2	10								
E		9	Sil	Diatoms	0	10								
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SUPPLEMENTARY NOTES		
1. Cores 2. Sediment 3. Deep-Sea Core Description	nd identify by block number)	
This report supplements Volumes previously, in this sequence (Johnson descriptions and smear slides analysamples collection of the Woods Howard November, 1973 and November, 1976. The North Atlantic, Mediterranean, of ships' tracks and updated computations are also included.	s 1-4 of the core on and Driscoll, yses for all core le Oceanographic Approximately and South Atlan	e descriptions published 1975). It contains visual es received in the geologica Institution between 368 sample localities from tic are represented. Charts

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